

Court ruling on contracts could affect academics

by Ngali Crequer

Universities are studying closely a decision of the Court of Appeal which clarified the law relating to fixed term contracts and which could have wide-ranging implications for thousands of academics.

And following the decision the Association of University Teachers has this week sending out fresh guidance to its members as to how they now stand in relation to claims for unfair dismissal, compensation and redundancy payments.

In *Dixon v British Broadcasting Corporation* and *Constantin v British Broadcasting Corporation* the Court of Appeal dismissed appeals by the BBC against an Employment Appeal Tribunal. The EAT had allowed appeals by two persons, Mr Leonard David Dixon and Mr B. Constantin, whose applications for compensation for unfair dismissal had been dismissed by a Manchester industrial tribunal. The Court of Appeal decision was reported in *The Times*, October 6, 1978.

The two men's claims for unfair dismissal depended on whether they had been dismissed at all. They had been employed for an indefinite period, which had then been extended to a given date, unless notice was given on either side. Come the given date the contracts were not renewed and they claimed unfair dismissal.

The BBC had held that the contracts were not for a fixed term since they were determinable by

notice. But the Court of Appeal held that "fixed term" in the context of unfair dismissal means a specified term even though it may be terminable by notice.

The Appeal Court decision will go some way to ending the legal confusion within the universities over the rights of lecturers on short-term contracts to make claims if the contracts come to an end. Mr Laurie Supper, general secretary of the AUT, said this week there were about six cases pending in the university sector concerning people on short-term contracts wondering if they could make redundancy or unfair dismissal claims.

In the light of previous lower court decisions it was claimed that where the law held that a contract was not for a fixed term, then they just run out and claims for unfair dismissal were not admissible.

The Court of Appeal has now decided that a contract with a fixed beginning and a fixed end is a fixed-term contract whether or not there is provision for notice to be given on either side. This could have implications for current contracts and may influence the drawing up of new ones.

The AUT will be discussing the issue at two briefing sessions in plans to hold in Edinburgh and Manchester next week. The Committee of Vice-Chancellors and Principals is also studying the court transcript to see if new guidance needs to be given to universities.

DES bends rules to help recruitment

by Judith Judd

Colleges with teacher training will be allowed by the Department of Education and Science to admit more students to one-year courses if they fail to reach their targets on three and four-year courses.

The move, announced by the department in a letter to all colleges, is an attempt to meet the recruitment difficulties being experienced by some colleges and polytechnics as the standards of entry to teacher training are raised.

It is controversial because of the anxiety among teacher educators that the proportion of those on one-year postgraduate certificate of education courses should not rise further until more is known about the comparative merits of different types of training.

The letter says that the Secretary of State has decided against any further significant shift in balance between the output from three and four-year courses and one-year courses.

However, to help those institutions which experience temporary difficulties in recruitment to either type of course, she is prepared to permit variations in numbers on different courses.

Inquiries by *The Times* this week show that these difficulties are real. By 1980 all entrants to teacher training will need two A levels and the equivalent of maths and English O level.

Last year only 574 per cent of grants held two A levels, Miss Beryl Sowerbutts, general secretary of the Central Register and Clearing House, said that she hoped the figure would be 65 per cent this year, though this might be optimistic.

Recruitment at colleges varies. While Bath College of Higher Education has filled all its places with two-level students and Charlotte Mason, Amble, is to demand three next year, some of the polytechnics are in more difficulty.

At Newcastle Polytechnic this year's quota was 155, the number recruited 132 and the number of these with two A levels 76. On the other hand, only about 60 per cent of the 76 had mathematics O level.

At Trent Polytechnic with 200 places, 135 have two A levels but only 105 of these have both English and maths O level. At Leicester Polytechnic 57 of the 105 students accepted have two or more A levels. At Leeds the figure is 120 out of 180, though not all of the 120 have mathematics O level.

Mr Malcolm Leach, chairman of the National Association for Teachers in Further and Higher Education's teacher education committee, said colleges must not go back on the view that standards of entry to the schools needed to be made aware of the new regulations.

"If no one can see that, by the time these regulations come into force some courses will cease to be viable," he said.

Internal differences over theoretical and administrative issues have contributed largely to the closure, Staff believe, of the university's support for the more traditional approach to these matters, as expressed by the professor and head of department, Mr Ian S.

of the national body the local associations would be jeopardising the entire package of recommendations. This would enable other groups, particularly polytechnic directors to renew their call for a total end to local control of polytechnics.

The local authority associations' position is also complicated by differences of opinion internally. In the ACC, education leaders are not confident that their own association's executive committee will endorse legislation on Oakes.

Meanwhile local government officials are to have a conference with DES to discuss details of the education legislation planned for the new parliamentary session. Apart from the Oakes provisions, Mrs Williams' Bill, which sets up new education institutions, allows for the 16-18 age group.



An exhibition is being held at the Courtyard Gallery, Imperial College, London to illustrate the college's expansion. These photographs from the college archives show Queen's Tower as it is today (right) and as it was in April 1956 as part of the remains of the Imperial Institute.

Dispute over staff numbers may become a test case

A dispute at Nottingham University as to whether the Association of University Teachers has a right to negotiate the question of staff recruitment may become a test case.

The Nottingham AUT has claimed that the university has failed to consult with the university's staff and the question of staff recruitment is a matter of academic matters taken in accordance with the statutes and ordinances are excluded from negotiation.

Meanwhile the matter has been taken up by the national AUT and it may have an impact on the university council. If it is settled the local AUT may be able to use the national AUT's decision on Academic Service, Oxford and the University of Warwick.

The university is adamant that the AUT claims are procedurally incorrect and the subject is closed. Mr Alfred Plomb, registrar, said: "The point at issue is the procedure agreement which the local AUT has with the university which specifies subjects which may be negotiated."

The procedure agreement states that decisions of the university relating to academic matters taken in accordance with the statutes and ordinances are excluded from negotiation.

Mr Malcolm Leach, chairman of the National Association for Teachers in Further and Higher Education's teacher education committee, said colleges must not go back on the view that standards of entry to the schools needed to be made aware of the new regulations.

"If no one can see that, by the time these regulations come into force some courses will cease to be viable," he said.

Internal differences over theoretical and administrative issues have contributed largely to the closure, Staff believe, of the university's support for the more traditional approach to these matters, as expressed by the professor and head of department, Mr Ian S.

of the national body the local associations would be jeopardising the entire package of recommendations. This would enable other groups, particularly polytechnic directors to renew their call for a total end to local control of polytechnics.

The local authority associations' position is also complicated by differences of opinion internally. In the ACC, education leaders are not confident that their own association's executive committee will endorse legislation on Oakes.

Meanwhile local government officials are to have a conference with DES to discuss details of the education legislation planned for the new parliamentary session. Apart from the Oakes provisions, Mrs Williams' Bill, which sets up new education institutions, allows for the 16-18 age group.

The local authority associations' position is also complicated by differences of opinion internally. In the ACC, education leaders are not confident that their own association's executive committee will endorse legislation on Oakes.

Meanwhile local government officials are to have a conference with DES to discuss details of the education legislation planned for the new parliamentary session. Apart from the Oakes provisions, Mrs Williams' Bill, which sets up new education institutions, allows for the 16-18 age group.

The right, the left and the downright ugly...



Government may fail to meet student targets, says report

by Peter David

Unpublished details of student numbers produced within the Department of Education and Science fall far short of the targets set by the Government to reach its target of 500,000 students in higher education by 1981.

A report submitted to the Council for the Labour Government, which is preparing the details of next year's State Supplementary Scheme, says there is a serious shortfall in student numbers in the public sector.

It adds: "A number of factors in polytechnics and colleges running some 2,000 below expectations in 1977."

But even the revised estimates appear now to be higher than the actual take-up of places. Calculations by the DES show enrolment in polytechnics and colleges running some 2,000 below expectations in 1977.

These courses will be aimed particularly at those adults who have not come into contact with education after leaving school—for example, women, ethnic minorities and the socially disadvantaged.

One way of attracting such people into higher education, says the document, will be by stepping up the number of part-time courses in universities and by providing them with financial incentives.

"This Labour Government has considerably increased the number of part-time places. We will continue to extend this policy and give increasing support to adult students on non-advanced courses—part-time as well as full-time."

Labour's policy is for "an integrated comprehensive system of post-school education." The committee, headed by Mr. Leach, says the national body for higher and further education to be set up under the Oakes report as a step in this direction since "it will coordinate closely with the universities in planning higher education as a whole."

The importance of trade union education is also mentioned. The Labour Government will give more money to colleges which take on the challenge of greater industrial democracy.

Adult education will be another beneficiary, if Labour wins the election. The party is anxious to promote paid educational leave and secondments from industry, says the document.

Unpublished details of student numbers produced within the Department of Education and Science fall far short of the targets set by the Government to reach its target of 500,000 students in higher education by 1981.

A report submitted to the Council for the Labour Government, which is preparing the details of next year's State Supplementary Scheme, says there is a serious shortfall in student numbers in the public sector.

It adds: "A number of factors in polytechnics and colleges running some 2,000 below expectations in 1977."

But even the revised estimates appear now to be higher than the actual take-up of places. Calculations by the DES show enrolment in polytechnics and colleges running some 2,000 below expectations in 1977.

These courses will be aimed particularly at those adults who have not come into contact with education after leaving school—for example, women, ethnic minorities and the socially disadvantaged.

One way of attracting such people into higher education, says the document, will be by stepping up the number of part-time courses in universities and by providing them with financial incentives.

"This Labour Government has considerably increased the number of part-time places. We will continue to extend this policy and give increasing support to adult students on non-advanced courses—part-time as well as full-time."

Labour's policy is for "an integrated comprehensive system of post-school education." The committee, headed by Mr. Leach, says the national body for higher and further education to be set up under the Oakes report as a step in this direction since "it will coordinate closely with the universities in planning higher education as a whole."

The importance of trade union education is also mentioned. The Labour Government will give more money to colleges which take on the challenge of greater industrial democracy.

Adult education will be another beneficiary, if Labour wins the election. The party is anxious to promote paid educational leave and secondments from industry, says the document.

of which each MP was a member. The researchers concluded that the political allegiances of Labour and Tory MPs could be judged reliably by a large number of people from facial photographs alone.

It is an interesting conclusion—although not exactly earth-shattering. But now for the nasty bit. Those MPs judged to be Labour were seen as less intelligent, of lower social class, and less physically attractive than those judged as Conservative—even by the Labour supporters.

The researchers conclude: "One interesting question for the image makers is whether a Labour candidate standing in the general election will be more likely to succeed if he looks unattractive and unattractive since this is what the general public expect of him."

This lesson for Premier Jim Callaghan is clear. To ensure victory over the dreaded Thatcher, he must assemble the shiftest, ugliest, most unattractive available. Perhaps he's half way there...

of which each MP was a member. The researchers concluded that the political allegiances of Labour and Tory MPs could be judged reliably by a large number of people from facial photographs alone.

It is an interesting conclusion—although not exactly earth-shattering. But now for the nasty bit. Those MPs judged to be Labour were seen as less intelligent, of lower social class, and less physically attractive than those judged as Conservative—even by the Labour supporters.

The researchers conclude: "One interesting question for the image makers is whether a Labour candidate standing in the general election will be more likely to succeed if he looks unattractive and unattractive since this is what the general public expect of him."

This lesson for Premier Jim Callaghan is clear. To ensure victory over the dreaded Thatcher, he must assemble the shiftest, ugliest, most unattractive available. Perhaps he's half way there...

Professor accuses SSRC of interference

One of Britain's leading professors of sociology has accused the Social Science Research Council of excessive academic and administrative interference in the work of its units.

Warwick University's Professor John Rex made the charge last week when he declined the offer of a post as director of the council's research unit in research on the public sector, particularly in the general education, will also be a big effect on the universities.

The DES is to meet the University Grants Committee and the local authority associations to review all its forecasts of student numbers up to 1981.

If universities are having less difficulty in attracting students on the public sector, the White Paper, the problems of the public sector may result in another redistribution of grants, with the universities' share of the 500,000 growing higher at the expense of polytechnics and colleges.

The new figures are bound to cast doubt on the major assumptions about student demand underlying the recent DES discussion document, "Higher Education into the 1990s". They show that DES estimates of student numbers on the public sector—which is expected to become an ever bigger source of higher education entrants—have been consistently over-optimistic.

In 1977 a total of 714,000 higher and further education students enrolled in the maintained sector, compared with a DES forecast a year earlier of 765,200. Twelve months ago the department was predicting 804,500 students in 1979.

But this figure has now been pruned to 760,000. Estimates of sixth form numbers, too, show no evidence of an increase in the proportion heading for higher education.

The new statistics lend weight to the view of many respondents to the discussion document that the central projection of student numbers over the next two decades is too high, and the "low variant" more plausible. The central projection envisages numbers rising to more than 600,000 in the late 1980s, necessitating huge investment.

But this projection assumes an increase in the proportion of people under 21 taking higher education from its present 13 or 14 per cent to something like 18 per cent. The new figures suggest that DES expectations are already not being met and that the low variant—where students numbers are not expected to rise above 550,000—might be more reliable.

Dr Cyril Smith, the council's secretary, said that the 30 staff in the council's four units were SSRC employees and all conditions of service had to be approved by the DES and the Civil Service Department.

But Professor Rex has also brought to a head considerable discontent within some other SSRC units about the extent of interference from the council's headquarters in London. Professor Banton said this week that the academics associated with the SSRC had less experience in managing research units than their counterparts in other research councils.

He said: "I believe the academics involved in the SSRC or headquarters tend to be impatient in what they want in the way of results. They are more inclined to interfere and get very close to the work than is the case in fields where there are better established research councils."

Similar concerns about the relations between grants and headquarters are expressed in a report submitted to the council by another of its units, the Centre for Socio-Legal Studies in Oxford, which is in the throes of a review.

Mr Derek Robinson, SSRC chairman, has denied that any of the units are subject to excessive interference.

Dr Cyril Smith, the council's secretary, said that the 30 staff in the council's four units were SSRC employees and all conditions of service had to be approved by the DES and the Civil Service Department.

Contents

European University



David Margolick argues that all is not well in the academic community of the European University Institute, 11

Town and gown

Ngali Crequer describes the mixture of town and gown which forms Manchester University, 8 & 9

Daniel Boorstin

David Walker interviews the librarian of the United States Congress who is both an intellectual leader and keeper of books, 7

Rent-a-don

A. T. Kuhn suggests that, instead of sabbatical leave, dons might be rented to industry, 13

In a twist

Let us all be professors, says Ninian Smart in his series on concepts in a twist, 12

Martin Heidegger

Anthony Munser reviews two books on the German philosopher, 14

North American news

Overseas news 6

Books 14-19

Noticeboard 20

Don's diary 30

Letters 29, 31

Court threat over two-tier rents

By David Jenkins

The Department of Education has been threatened with legal action if it does not act soon to end higher rents for overseas students in self-catering accommodation.

The coming from the National Union of Students arises from concern that overseas students are being deterred from applying for self-catering accommodation at polytechnics and colleges because they cannot afford rents which may be up to three times higher than those charged in home students for identical properties.

Overseas students have enough problems without having to face additional unnecessary barriers," said the NUS president, Mr Trevor Phillips.

This week the DES said that guidance would be issued to education authorities within the next three weeks. It had already indicated that fresh guidance might be given after the legality of charging overseas students more was questioned by Liverpool Polytechnic earlier this year.

In the meantime, the uncertainty caused by DES advice to Liverpool to stop charging differential rents has led to glaring anomalies. In at least two cases known to THE TIMES, polytechnics have suspended the two-tier rent system while a near neighbour has continued to charge overseas students more.

The NUS is angry that there has not been earlier Government action to ensure that all polytechnics and colleges fall into line with the DES

advice in Liverpool. It has already pointed to Mr Gordon Dukes, Minister of State for Education, and has drawn up lists of institutions which are following DES advice and those which are not.

"The sentence with the DES is wearing thin," Mr Phillips said. "The department is allowing injustice and humiliation to be heaped upon overseas students by renegade authorities."

The situation is doubly unjust because these regulations have never applied to the universities or for local authorities in Scotland. Mr Phillips has written to Mr David Lane, chairman of the Commission for Racial Equality, explaining the problem and asking assistance with the legal proceedings if they are needed.

Talks start soon on CSE and O level merger

By Maggie Richards

Higher and further education representatives will be expected to play a major part in formulating procedures for the introduction of the new General Certificate of Secondary Education, tentatively scheduled for 1985.

The White Paper proposals for a new single examination system at 16 plus, published this week, suggest a new seven-grade scheme to replace the existing GCE and CSE examinations.

Amalgamation of the various GCE and CSE examination boards into one authority for England, and one for Wales, is recommended. It is emphasized that schools would retain the freedom to choose their boards and structure of the five new bodies would be created in such a way that a level work would not be disrupted.

Explaining the Government's reasons for wanting to dispense with the present system, the White Paper says its two components do not match any natural division of abilities or aptitudes among children. It also confuses to employers and the public.

It is proposed to establish a new coordinating body to oversee the introduction of the new exam and monitor progress. Universities and colleges will be invited to take part in discussions about its inception.

In setting up the new central organization, the Government does not intend to impose any national restrictions on the examination system, but it feels such a body will reassure the public that standards are being maintained.

"Public confidence in comparability and standards will be reinforced by the knowledge that all groups of boards are applying the same criteria agreed with a central coordinating body to all their syllabuses and assessment and moderation procedures," says the White Paper.

At examining board level, no one body should, by virtue of its size, dominate the remainder. In drawing up the proposals, a consideration of the boards it will be necessary to bear in mind existing A level work and the continued use of university property for examination purposes, the White Paper adds.

A senior body will be responsible for overseeing the work of each board and membership will consist of university and public sector higher education representatives, further education members, teachers, local education authority officials, employers, trade unionists and others. No one group will have a majority, and the group will be chaired by a representative of the Department of Education and Science who will be maintained through the appointment of assessors.

Protest over exam debacle

A war of attrition against the Institute of Chartered Accountants' handling of examinations is being launched by the Association of Chartered Accountants' Students because of the latest poor results in the ICA final professional examination. Only 1,036 students out of 4,166 passed.

Results from the previous examination last December, which only 15 per cent of students passed (465 out of 3,034), have already led to vociferous arguments from ACASS that the Institute's high examination standards are not being supported by an equivalent comprehensive education and training policy.

In an unprecedented move this week, Ms Frances Harper, the ACASS president, has urged students to believe they should have passed the exam, not to remain silent but to complain to the Institute.

"Ask for an explanation of your failure, particularly one giving the main reasons which contributed to it. Demand that the addition of your marks be rechecked because of a clerical error," Ms Harper writes. She points out that many tutors should have passed, so that complaints will not go unheeded, and she advises students to seek their support and ask them to approach the institute on their behalf.

The new exam will broadly cater for the range of candidates taking the present GCE and CSE papers, but recognizing the wide ability range to be covered, in some subjects the new system will provide a variety of papers and tests set at different levels.

At present, says the White Paper, schools are forced to make decisions at an unduly early stage about which examination syllabus should be followed. Arbitrary syllabus variations between O level and CSE in some subjects also make it difficult for schools to use their teaching resources to the best advantage.

With the new examination, pupils preparing for alternative papers in the same subject could be taught together for at least part of the time, and decisions about individual examination needs taken later.

The White Paper suggests discussions between the DES and the existing GCE and CSE boards should begin shortly. Boards will be invited to draw up proposals on the basis of negotiating between themselves. In Wales, the Welsh Office will conduct talks with the Welsh Joint Education Committee.

Outline proposals for the new boards should be ready by July next year, and the Government hopes the central body will be in operation by the end of 1979.

The new syllabuses might be introduced in 1983, leading to award of the first GCEs in 1985, but so final that the introduction of the system will be set and after the examining boards and central body have been set up.

Approval for the Government proposals came this week from the Association of County Councils, which expected introduction of the system to lead to much more uniformity. The scheme was also welcomed by the Schools Council.

But Mr Norman St John Stevens, Conservative spokesman on education, referred to the proposals as "disappointing and disturbing". At a time when there were widespread parental fears about falling standards, the Government introduced a new exam system, he said.

Mr Stevens said the proposals failed to provide two vital reassurances - on maintenance of academic standards and continuation of public confidence in the examination system. Due to an industrial dispute the White Paper is not available. An explanatory leaflet for parents, teachers and employers are available from Tunn 2/11, Department of Education and Science, Elizabeth House, York Road, London SE1 7PH.

Premier to present awards

The Prime Minister, Mr Callaghan, is to present awards to the English Engineering Training Board's first fellows in manufacturing management. At a ceremony on Monday, he will give each of the 15 professional engineers a specially struck silver medalion to commemorate the event.

The fellows have just completed a concentrated programme of training which began in March 1976. After six months at Cranfield Institute of Technology, each undertook management projects which lasted a year or an engineering works. The working on the second and third round is to be started soon.

The scheme was launched to boost numbers of engineering graduates entering management - rather than the usual fields of research, development or design.

THESIS BINDING
High quality binding to your own specification. From £5 per vol.
Call or phone
F. J. Blissett & Co. Ltd.
Rushmore Road, Slough
Tel: 01-892 3995

Leading space research station to be closed

By Robin McKie

One of the country's leading research stations, the Appleton Laboratory, is to be closed down by the Science Research Council. The move, which will be completed by the end of May, was agreed in principle last week.

A working party had been set up to study the operation of the Appleton Laboratory and had recommended the council shut down the station. Now the Appleton Laboratory will be required to move 2.5 miles from the site to the new site at the Rutherford Laboratory.

The move was agreed in principle last week. A working party had been set up to study the operation of the Appleton Laboratory and had recommended the council shut down the station. Now the Appleton Laboratory will be required to move 2.5 miles from the site to the new site at the Rutherford Laboratory.

The Appleton Laboratory began in 1921 as a few huts set up as a centre designed for radio research. It later began research into the ionosphere and was closely associated with the scientist Sir Edward Appleton, discoverer of the ionospheric layer, the Appleton layer, and after whom the laboratory was named.

The centre was also involved in pioneering work into the development of radar and in the later 1930s became involved in space research and research. The last of British scientific satellite, Ariel 5, launched in 1974, is being controlled from the laboratory.

Top engineering students offered £500 awards
Head of 150 national engineering schools, each worth £500 a year, are to be offered to high-achieving students next year an award to encourage them to take engineering and industrial careers.

Mr Hain admitted that this year's approach had done little to encourage students to enter industry. Those who had applied for a place in schools, or polytechnic in Britain.

Mr Hain said that this year's approach had done little to encourage students to enter industry. Those who had applied for a place in schools, or polytechnic in Britain.

Mr Gordon Dukes, Minister of Education, said that the scholarship scheme would lead to increasing interest in schools, or polytechnic in Britain. The scheme was part of the Government's strategy for ensuring that the country's manufacturing industry would become vigorous, strong and competitive.

Mr Dukes said that the scholarship scheme would lead to increasing interest in schools, or polytechnic in Britain. The scheme was part of the Government's strategy for ensuring that the country's manufacturing industry would become vigorous, strong and competitive.

Oxford may boost graduate titles

Students of Oxford University are expected to take part in the first time in the department - the "Jons" Parliament.

Students will be invited to register the degrees of Bachelor of Letters and Bachelor of Philosophy. There would be exceptions.

Members of the university who include graduate students were given the right to register after a postal vote. The vote resulted in 534 votes in favour and 413 votes against.

A visiting party from the Council of National Academic Awards last week extended the period of validity for the BSc sociology degree to the full five years, having previously granted only limited approval.

But a question mark still hangs over the future of the department, which recruited only 26 first-year students in September - a drop of 17 compared with 1977.

Mr Noel Pary, head of sociology, and Miss Jean Snelling, head of applied social studies, have in applied teaching and research staff in the two departments was presented on November 21 to discuss future developments and possibly set up a working party to undertake detailed planning. Smaller groups are to meet next week to prepare proposals.

AUT approves genetic experiments

Cautious approval of future genetic experiments has been given by the Association of University Teachers' provided proper safety precautions and public accountability are maintained.

In a report published this week, the AUT, which represents 30,000 university teachers and researchers, states that the benefits of genetic manipulation outweigh any potential hazards and every encouragement should be given in this work because of its enormous potential in improving man's welfare.

University teachers involved in this work are sensitive to safety aspects because they are in the position of both employers and employees and are therefore concerned with the safety of their colleagues, non-academic staff and the general public," the report says.

And the AUT urges that funds should be set aside for properly equipped laboratories and for the appointment of properly trained staff. This would ensure that universities could provide postgraduate training for future scientists needed for basic research and the application of genetic engineering techniques in medicine, agriculture and industry.

"In this way, the social equation of benefits versus hazard can be pushed even further in the direction of benefit and the general public can be reassured that adequate safety precautions have been observed," it adds.

The AUT sees two particular areas of hazard. First, infectious agents could provide postgraduate training for future scientists needed for basic research and the application of genetic engineering techniques in medicine, agriculture and industry.

Secondly, danger could be caused by introducing genes from cancer cells into cells, but bacteria which could survive in man.

"In fact, no hazards have yet come to light in spite of active research and the most dangerous viruses and bacteria continue to be those which have been exposed to intense selection over the centuries rather than those which have been engineered by man," the report adds.

Mr Dukes said that the scholarship scheme would lead to increasing interest in schools, or polytechnic in Britain. The scheme was part of the Government's strategy for ensuring that the country's manufacturing industry would become vigorous, strong and competitive.

Mr Dukes said that the scholarship scheme would lead to increasing interest in schools, or polytechnic in Britain. The scheme was part of the Government's strategy for ensuring that the country's manufacturing industry would become vigorous, strong and competitive.

Student slump threatens poly sociology course

Falling student numbers at North London Polytechnic's sociology department have prompted talks on the possibility of a merger with another department.

Mr Pary admitted that recruitment was down but said that this reflected a national trend away from traditional sociology towards more vocational training. There was no question of the department closing and discussions with other departments were part of a general debate on the future organization of the polytechnic.

Students in the department have already declared their opposition to a merger. They have also published a pamphlet, backed by the students' union, giving their version of a dispute in the department lost term over the status of examinations for first-year students.

The pamphlet, which is critical of Mr Terence Miller, director of the polytechnic, and of some staff in the department, was presented to the CNAA party. Students who met Professor Stephen Cotgrave, who chaired the visiting party, repudiated long-standing accusations of Marxist bias in the course.



Christian Schind's self-portrait is from Neue Schlichtheit and German Realism at the Twenties, on exhibition which opens at the Hayward Gallery on the South Bank on November 11.

Colleges urged to stimulate teachers' sagging morale

by Patricia Santinelli

The morale of the teaching profession could be stimulated and boosted by an annual staff development week, Mr George Tolley, principal of Sheffield Polytechnic, said last week.

Speaking at the National Association of Staff Development's annual conference in Manchester, Mr Tolley said that the morale could be boosted by an annual staff development week, Mr George Tolley, principal of Sheffield Polytechnic, said last week.

Mr Tolley said that the morale could be boosted by an annual staff development week, Mr George Tolley, principal of Sheffield Polytechnic, said last week.

Mr Tolley said that the morale could be boosted by an annual staff development week, Mr George Tolley, principal of Sheffield Polytechnic, said last week.

Librarian appeals

A librarian at the Ulster Polytechnic has resigned and has started legal proceedings alleging constructive dismissal.

Mr M. R. Jain, a £7,572 a year sub-librarian at the polytechnic in Jordans, County Antrim, is not satisfied with the outcome of two internal hearings which considered his grievances.

The case is expected to come before an industrial tribunal in Belfast in mid-December and may last several days.

Property course

The British Property Federation is to make a three-year grant to Reading University to establish a new post-graduate British Property Federation Visiting Fellowship in Development. The first fellow will be appointed in October, 1978, and the federation's initial grant will be £3,000 per annum.

The post will involve the teaching of the practical aspects of development with the emphasis on the understanding of the problems and skills of the developer's role.

DO YOU WANT TO DEVELOP RESEARCH SKILLS IN A MANAGEMENT SUBJECT?

ATM

The Association of Teachers of Management in conjunction with the SSC is running a programme to help the development of basic research skills in areas relevant to management and management education.

The programme runs over 12 months (beginning January 1979) and involves two residential one-week workshops at one of the London Business Schools, one two-day follow-up event and the carrying out of a research project on a topic of the participants' choice, under the supervision of an expert in the subject.

Thanks to the support of the Social Science Research Council a nominal fee of only £70 is charged to cover material and accommodation costs.

Further information and application forms are available from A.T.M., based at the Polytechnic of Central London, 26 Marylebone Road, London NW1 5LS. Tel: 01-484 8811, ext. 239

Easier grants for 1,000 drama students

A new system of accreditation for drama schools is likely to give official recognition to about 20 schools by 1980.

The system, which was announced this week, will be administered by the National Council for Drama Training, and up to 1,000 students a year will now find it easier to obtain a grant.

The aim of the system is to ensure high standards of training and provide a recognized route into the theatre, as well as improving the immediate financial prospects of students. It is hoped that close links with the acting profession

will give courses a vocational slant with general educational content becoming secondary.

The Department of Education and Science and the Council for National Academic Awards have advised on the new procedures, which will involve visits to all institutions applying for accreditation. Schools will have to satisfy certain criteria regarding the character and length of courses before they are eligible for consideration.

Only about eight institutions outside the Conference of Drama Schools, which is already recognized by the DES, are expected to

meet the requirements. The majority of students in CDS schools receive grants through the discretionary awards system but, although there has been no formal under-taking, accreditation is likely to make grants almost mandatory.

The award union, Equity, is expected to use its quota system of membership to ensure that students from the recognized schools are in a "moderately privileged" position when they start their careers. But the NCDT insists that this will not affect graduates from drama departments of universities and other institutions of higher education.

Researchers may join forces

by Robin McKie
Plans are being prepared to set up an association in Britain for improved rights for research workers. This new group would press for better contracts and redundancy payments for research workers and would operate in conjunction with the researchers' associations recently established inside certain disciplines.



A skeleton in the Ave and Archaeology exhibition which opens at the Ashmolean Museum, Oxford, tomorrow. It is of a young man who lived in the sixth century AD and was found in Grave 61x of the Anglo-Saxon cemetery at Berinsfield, near Dorchester. The excavation was carried out in 1974 by the Oxfordshire Archaeological Unit.

Institutions told to go solo

Institutions of science and technology have been advised to set up their own environmental qualifications, based on each body's specialized disciplines, rather than adopting a general standard of requirements. And the Council for Environmental Science and Engineering has also urged that these qualifications be based on existing courses at universities and polytechnics.

The CUSE has recommended that member institutions of the Council of Engineering Institutions and the

poor job security. The engineers are particularly concerned that researchers in short-term contracts are now being asked to sign away their rights to redundancy pay. They want an assurance from the various research councils that some form of redundancy payment will be made to scientists whose contracts are not renewed, and they are also pressing for researchers to be given similar employment rights to permanent staff at a university or college.

Much of this recent problem has been caused by financial cutbacks in higher education. There are longer available staff positions at universities for researchers to move into and decreasing funds have also meant fewer research projects.

Arguments that 'look rather quaint'

by Ngao Cresquer

bridging the Gulf, rather than Tunneling the Peak will be the problem of higher education in the 1990s, according to Sir Charles Carter, vice-chancellor of Lancaster University.

Sir Charles gives his views on the Department of Education and Science discussion paper in a *Higher Education Bulletin* published by the Institute for Post-Compulsory Education at the University of Lancaster.

He says it is likely, family size stabilises, then the birth-rate will probably rise substantially, as it did 25 years ago. He says that this makes the DES arguments in the discussion document "look rather quaint". "On their central projection (which makes some assumptions about graduate and overseas students which are rather low) the variations in total student numbers between 1981-82 and 1992-93 are perfectly capable of being accounted for by the elasticity of the higher education system."

The Peak, through which we are invited to Tunnel, proves to be a flat-topped mountain whose summit is only 40,000 17 per cent above the levels at the two sides. He says that what looks worrying is not apparent precipice starting in 1992 with the loss of a further 40,000 students in three years.

But in prospect, starting in about 1998, will be a large increase in the 18-year-old age group which will on an oval at least 2007. Between 1995-96 the 18-year-old age group will be fairly constant. Sir Charles predicts a discussion document at the end of the period which will draw attention to an awesome cliff which has to be climbed.

"What all this suggests to me is that the DES is engaging in a very serious business of civil engineering. Tunneling the Peak is hardly worthwhile. The Bridge to the Gulf is a much more serious problem, and yet surely, no one in 1992 will contemplate dispersing resources which will be needed again before the decade is out."

In this same bulletin staff at the Institute and at the department of educational research of the university examine the concentration on numbers in the DES discussion document, the policy alternatives offered and the general issues involved in planning for the 1990s.

Higher Education Bulletin, a special issue on the DES/SED discussion document, "Higher Education: The Future", published by the Institute for Post-Compulsory Education, University of Lancaster.

OU students to visit Egyptian tomb

Open University student Mr John Carter is to get the chance to visit the tomb of Tutankhamun—first discovered by him in 1922. Mr Carter, 35, is one of 12 under-graduate students from the OU—two have won travel scholarships awarded by the Egyptian government.

The two-week scholarships were offered in a competition for all British undergraduates organized by the Egyptian Embassy, pointed out that the answer to humanity and exchange in education. We needed to start at the higher education level, but

Literacy telephone service to be extended

by Maggie Richards

The telephone referral service which helped put the adult literacy campaign on the map is to be expanded.

The service, originally established in 1976 as a link between the BBC's *On The Move* television series and the literacy movement, has introduced some 50,000 students and about 20,000 volunteer tutors in the campaign.

Now it is to widen its activities and become involved in a whole range of basic education programmes, including collaborative ventures with independent television companies.

The first of these efforts begins tomorrow when the *Move It Can't Wait* series produced by Yorkshire Television is repeated, accompanied this time by the offer of help from the referral service to viewers in touch with local agencies.

Coinciding with the start of co-operative ventures with independent television companies, Mr Kim Taylor, head of the Independent Broadcasting Authority's educational broadcasting service, is to become a director of the Adult Literacy Support Services Fund, the limited company which administers the service.

Already the service has been working closely with independent radio stations on literacy publicity, and Lady Evelyn, member of the IBA, has been a member of the support services fund since its inception.

Coverage of the literacy campaign has involved the service in supporting functions, appearing on the national television and radio.

A pen-friend scheme has been set up, enabling more than 250 literacy students to practise their new-found skills. Students are matched by means of a questionnaire.

The service offers some 200 training activities to local agencies, with a particular emphasis on use of the media. It is also a special range of printed materials on literacy tuition.

The telephone system itself operated from four regional centres: London, Glasgow, Cardiff and Belfast, with a one-third of a total number of inquiries about the literacy scheme have come through the referral service.

But not all calls have been concerned with literacy tuition. Some have reflected concern with other aspects of education, and some have come from parents anxious about their children's learning problems.

Five per cent of calls within the area covered by the London regional office have come from people wanting help with English or a second language. Now new links are being established with organizations involved in providing this type of tuition throughout the country.

The support services fund has been financed from the beginning by charitable donations. Almost 200 organizations have contributed.

Professor warns of four areas where change is vital

by Patricia Santinelli

Unless higher education changed, the rest of post-secondary education would always remain second best, Professor Lewis Elton of Surrey University's Institute of Educational Technology warned at the five-day conference this week.

He stressed that there were four areas in which changes were necessary: the training of teachers in higher education; the training of teachers in higher education; the training of teachers in higher education; the training of teachers in higher education.

—the breakdown of the wall between intra and extra-mural education, the unification of initial and continuing education and action research in education.

Discussing the relevance of alternative learning systems in higher education, in relation to the paper "Higher Education into the 1990s", Professor Elton said that if the proposed Model B was to become a reality, greater flexibility would be needed.

This would affect credit systems in courses and credit transfer schemes between institutions, the individualization of learning, the creation of independent learning materials and of resource centres, and the training of teachers in higher education, the training of teachers in higher education, the training of teachers in higher education.

Earlier Mr John Coffey, acting consultant in open learning systems for the Council of Educational Technology had identified the constraints on educational opportunities existing in our post-school education system which could be removed by the introduction of alternative learning systems.

Among these were the administrative constraints on educational systems which, for example, tended to negate the chances of the adult in a full-time job wishing to return, but finding difficulties not

only with the fees but fitting in with an established schedule of courses. Mr Coffey pointed out that an open learning system could offer unlimited restriction on time or place of study. It could remove the barrier of group size requirements, resource centres and individualized learning packages. The kind of system could enable people to learn through means of educationally paid leave and ensure the transferability of credit.

"I do not believe that there will be an immediate adoption of this kind of system because it is so difficult at present to absorb in an education system, but I feel strongly that we should move towards it."

There were also problems with which solutions must be found before an open learning system could be set up. For example, there was relatively little knowledge of what kind of students were involved and we were not sure who they were and what their needs were. Moreover the necessary information networks for such a system did not exist, and we should look at the use of telecasts to establish these.

The system would also require every teacher to acquire both course design skills and counselling techniques. More research into the cost effectiveness was also needed.

Describing the growth of the study, the self-financing alternative learning system that is being introduced into further and higher education, one of the speakers, Harry Sacks, said that by next year some 1,500 to 2,000 students mainly, though not exclusively, adults ought to be studying for their O and A levels through this method.

English 'is being debased'

Cultural and educational exchanges in the European Community are taking place between a cultural exchange programme, Secretary of State for Education, said this week at a public discussion on cultural relations, partnership and policy, held at the Goethe Institut in London.

Speaking on the Institut's 20th anniversary, Mrs Williams pointed out that the answer to humanity and exchange in education. We needed to start at the higher education level, but

much earlier, in the schools, with six-year-old children. Only in this way will we be able to instill a sense of community, she said.

Another aspect which was being learned by many people from other countries out of context of the English language. For this reason, she said, the Institut had produced a colourful series of pamphlets, an exchange for computers, and a basic English not enriched by the use of the word 'debased'.

Big cuts urged in doctorate programmes

North American News

by Eric Cookson

WASHINGTON—American universities are offering PhD programmes that are being reduced to three quarters of the country's leading graduate schools were told at their annual meeting.

Professor Harrison Shull of the National Human Resources Research Council, who is chairing the National Human Resources Research Council, said that the country's leading graduate schools were told at their annual meeting.

Professor Shull proposed that Congress might identify 100 to 110 campuses "at which the Federal Government will support research institutions and graduate research studies first of all in an accomplished research and second to cut out the savings of supply and demand for doctorates. With such funding in place, rather quick shifts between institutional and predicament support can be accomplished."

In an interview afterwards, he said the figure of about 100 "national research universities" was "politically suitable" as well as being objectively the right number.

Staff must 'renew faith'

from Edward Sheffield

University teachers must renew their faith in higher education and be prepared to defend themselves against forces tending to undermine the profession, says Dr Donald C. Stagg, executive secretary of the American Association of University Teachers, in an article published by the association's *Bulletin*.

As an evidence of loss of faith, he says, "We are faced with the general public on the immediate verge of a university degree in the post-graduate era, but perhaps the people we really would serve are worse."

He argues, though, that university education benefits the country by providing a better informed citizenry and a more educated workforce. He also points out that the university system is not perfect, but it is the best we have.

Most of the remaining money will be spent on the preservation and maintenance of collections, saving some of the millions of dollars that are being poured into the stacks. Only \$800,000 is allocated for new acquisitions.

Next year the Association of Research Libraries, which represents about a hundred important libraries, will be holding a conference on the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

Research libraries awarded first Government grants

The Government has announced the first grants in a new federal scheme to strengthen America's major research libraries. Twenty libraries, mostly at universities, shared \$40 million of awards.

The biggest grant, \$675,000, goes to the University of California, Berkeley, for a project to be administered jointly with the University of California, Stanford University.

From the smallest award is worth \$75,000, this is in the University of Illinois.

The programme for Strengthening Research Libraries was authorized by Congress in 1976 but not actually funded until this year. Shortly before adjourning, Congress voted to appropriate \$40 million in 1977, although President Carter's budget request had been only for another \$5m.

More than half of this year's grants will be devoted to improving "bibliographical control and access" making collections more accessible to scholars and researchers, and encouraging cooperation and resource sharing between libraries.

Most of the remaining money will be spent on the preservation and maintenance of collections, saving some of the millions of dollars that are being poured into the stacks. Only \$800,000 is allocated for new acquisitions.

Next year the Association of Research Libraries, which represents about a hundred important libraries, will be holding a conference on the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.

The conference will be held in Washington, D.C., and will bring together librarians, educators, and other higher education groups to discuss the future of the library in the 1990s.



University of California, Berkeley, receives \$675,000.

The additional funding is needed, he says, to establish a "national network of research libraries" and to encourage the application of new technology, to share resources efficiently, the United States Commissioner of Education, Ernest Boyer, has spoken publicly of his enthusiasm for such a national network.

If more Federal money does become available, the libraries will have a trouble spending it. In 1978 the Office of Education was able to support only a fifth of the grant applications received, according to Frank Stevens, who administers the programme for strengthening research libraries.

The Government has also announced 2,500 grants, worth exactly \$3,996 each (\$10m in all), to college and university libraries, under the other Federal support programme for academic libraries. The money is earmarked for the purchase of books, periodicals, documents and audio-visual materials.

This College Library Resource



University of California, Berkeley, receives \$675,000.

Programme, as it is called, dates back to the 1965 Higher Education Act. This year the Carter Administration asked Congress to abolish it, on the grounds that it has outlived its usefulness. As an administrator, spokesman, said, there is not enough money in going on with it. The programme for strengthening research libraries, which was established in 1976, will continue to run at an annual rate of 7 or 8 per cent.

But Congress insisted on retaining the programme. "It's a popular programme because every Congressman has a college in his district," the spokesman observed. "It's a popular programme because every Congressman has a college in his district."

The Government has also announced 2,500 grants, worth exactly \$3,996 each (\$10m in all), to college and university libraries, under the other Federal support programme for academic libraries. The money is earmarked for the purchase of books, periodicals, documents and audio-visual materials.

This College Library Resource

This College Library Resource

This College Library Resource

This College Library Resource

This College Library Resource

This College Library Resource

This College Library Resource

Spending by states maintained

from our correspondent

WASHINGTON—States are still increasing their spending on public higher education at a fairly healthy rate, though no longer at the hectic pace of the late 1960s and early 1970s.

M. M. Chambers, professor of educational administration at Illinois State University, reports that the 50 state legislatures have increased appropriations for higher education by 22 per cent over the past two years. This represents a gain of 7 per cent in constant dollars, after allowing for inflation.

The total for 1978-79 is \$17 billion—up 235 per cent since 1968-69. Professor Chambers, who has been monitoring the states' expenditure on higher education since the 1950s, includes appropriations for the operating expenses of public colleges and universities, and grants and loans to students, including those at private institutions, but he excludes capital expenditure. Overall, actual spending bears a close relationship to these appropriations.

The facts show a clear geographical disparity between the Southern States, where public higher education is growing most rapidly, and the North-East, where in some cases spending is increasing more slowly than inflation. Mississippi and Alabama had the largest two-year growth in appropriations—42 and 30 per cent, respectively—and several of their neighbours had increases of more than 30 per cent, according to Professor Chambers.

Mississippi and Alabama now spend more money on higher education in proportion to personal income, than any other states. In terms of expenditure per head of population, the wealthier part of Alaska and Hawaii are next generous.

At the other extreme, Tennessee, which has the lowest per capita income, has the lowest spending per head of population. Tennessee's spending per head of population is only 7 or 8 per cent of the national average.

However, now Hampshire—o state noted for having an extremely conservative governor and in state income in sales taxes—stands its customary position of the lowest position for per-capita expenditure on higher education. It spends four or five times less per person than the most generous states.

In absolute dollars, California is the biggest spender, with an appropriation of \$2.3 billion for 1978-79. This is up 28 per cent on 1976-77, though Professor Chambers says the increase is inflated by the effects of Proposition 13, which forced the state to cut its spending on higher education. It is expected that some of the local property tax revenue lost by the community colleges.

From other experiments that gas molecules like oxygen and nitrogen, observed on a surface, do move around.

Discovery that metal atoms could move around for the field of microelectronics, Professor Crewe says. For it may set a limit on the computer industry's drive to make its electronic circuitry ever smaller—exceedingly fine wires, silicon would be unstable if their component atoms started wandering around. The Crewe-Issaacs technique could reveal the limits of miniaturization.

A more immediate application is in the industrially vital field of catalysis. Many of today's most important catalysts consist of heavy metals on a carbon base. The Chicago colour films will give new insights into their character and the way they work.

Albert Crewe, the first scientist to take photographs of individual atoms, has now produced an amazing colour film of atoms in motion, using the ultra-powerful "scanning" transmission electron microscope he has developed at the University of Chicago.

The movie, which was shown at a press preview last week, shows the atoms (of heavy elements like uranium, platinum and palladium) as extraordinarily mobile performers. Magnificent in their grace, they jump around and dance, hop, skip and jump around their stage, with completely unexpected agility.

"We had started this business on the assumption that the atoms would be like little marbles, not like the principal characters in a play," said Professor Crewe. "But, in fact, they almost look like amoeba under a microscope."

The "colours" on the film are entirely artificial. Individual atoms have no colours of their own, but the way they are illuminated by the wavelength of visible light.

Since obtaining their first colour

Clive Cookson, North America Correspondent, The Times Higher Education Supplement, National Press Building, Room 541, Washington DC 20045. Telephone: (202) 638 6765.

Rock on in Gibraltar

NOW is the time to swing into action and book yourself a Thomson holiday in Gibraltar. Thomson can offer you the Hotala Queen, Holiday Inn or Rock Hotel at prices which start from as little as £59 for 3 nights (b & b) in the Queen. There's a choice of 3, 4 or 7 night holidays and departure are in November and December, flying from Gatwick.

So hop along to your travel agent for full details or ring us on 01-307 4481 or 081-833 8222.

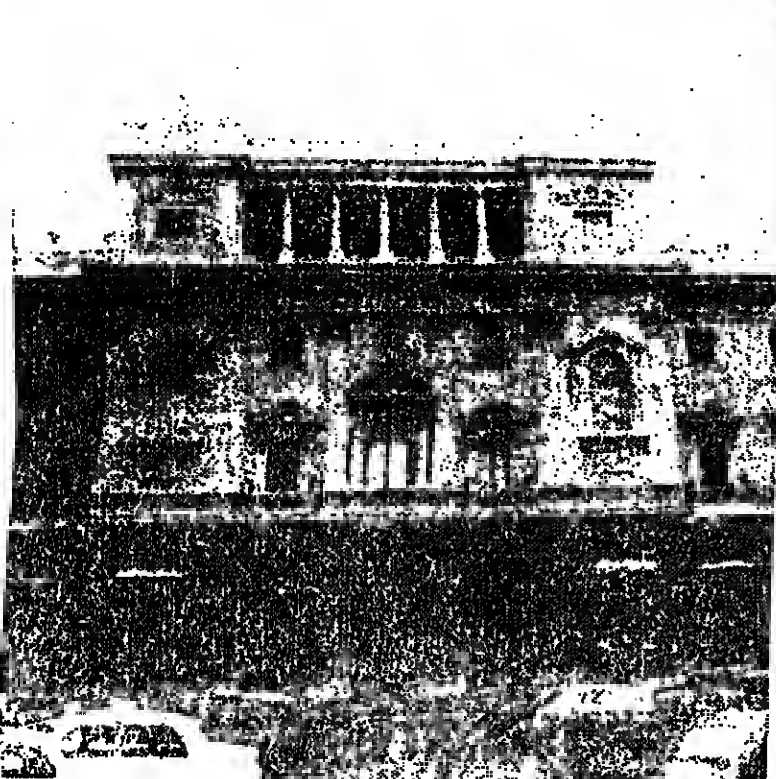
All holidays are covered by the Thomson price guarantee.

ATOL 152 BC.

Thomson Winter Cities

Overseas News

Uli Schmetzer reports on the Jesuit-run Gregorian University once attended by the new Pope



Left: the Gregorian University building. Above: Padre Gustin Wetter and (right): part of the interdisciplinary programme.

ROME

Students dressed in cassocks, habits and clerical collars daily climb a spiral staircase leading to a maze of attic rooms to glean information from 30,000 volumes of Marxist documents.

They are priests, nuns and seminary students of the Centre for Marxist Studies, at the Pontifical Gregorian University, an institution which has traditionally educated a large sector of the Vatican's hierarchy.

Not far from the centre, in another part of the colonnaded university buildings, 12 five-year students in psychology submit to a term of psychotherapy by their professors in order to be "liberated from their own inner conflicts" before embarking on the rest of their course. The university reserves the right to reject any psychology student considered "unsuitable" after analysis.

The Gregorian has come a long way since its foundation in 1583 with chairs in only theology and philosophy. Today the Jesuit institution incorporates 10 faculties and prides itself that among its graduates were 18 saints, 25 blessed and 16 popes, including the late Pope John Paul (bachelor in sacred theology, 1942 and doctorate of theology 1947) as well as his predecessor Pope Paul VI.

The university's influence on the Church's thinking has been profound.

That the university's influence on Church thinking is profound can be gauged from statistics revealing that 46 current cardinals (33 per cent of the College of Cardinals) and 852 bishops (22.3 per cent of all Roman Catholic bishops) have passed through it.

Often, dubbed "the Vatican's hatchery", the university benefited from reforms initiated in the Ecclesiastical Council of the 1960s and reflected in the Apostolic Constitution (the guideline of Catholic universities).

These reforms abolished compulsory Latin as the Institute's conversing language and gave scope to new initiatives like the Marxist study centre and the psychology and social sciences faculties.

Then in 1966 the first nun was accepted as a student. Today 433 women are among the 2,077 student population. Of these 249 are nuns and 184 laywomen—many of them Italian mothers who drop their children at school in the morning and then rush to attend lectures.

Continuing tradition of the Vatican's hatchery

Karol Wojtyla, the 58-year-old Polish Cardinal, who has become the first non-Italian pontiff in 455 years, has participated in seminars and conferences at the Gregorian University.

An academic of great prestige, within the Church hierarchy, John Paul II (the new Pope took the name of his predecessor who died after a 33-day reign) was sent to Rome by his diocese after World War Two in study for his doctorate of philosophy.

He received his doctorate in 1948 at the pontifical Athenaeum Angelicum, the Catholic University in Rome run by the Dominican order. (The Gregorian is run by the Jesuits.)

The new Pope's interests in educational institutions began early. While still in secondary school

(and working during the daytime in a chemical factory) in Krakow he established a recreational and instructional centre at the factory.

After returning as a doctor of philosophy from Rome he was appointed professor of ethics at the Catholic University of Lublin and in the theological faculty of the University of Krakow.

Passionately interested in French philosophy (he was captured in France by the Nazis and sentenced to hard labour in a quarry) Pope John Paul II has written numerous essays on French philosophical reviews, and a series of studies including a monograph on May Scheler, the philosopher who substantiated a philosophical anthropology in which the relationship between spirit and life is the central point.

With a reputation for being the most progressive of the Catholic universities in Rome the Gregorian switched from Latin to an ambitious five-language programme.

Although lectures are given in Italian, written and oral examinations are now accepted in French, English, Spanish and German.

The library is stocked with multilingual books, and in a country with a chronic teacher shortage and congested campuses the Gregorian is in the unique position of having available 250 multilingual professors, instructors and assistants to attend 2,000 students from 80 countries—a ratio of eight students to a teacher.

This situation is likely to remain as long as the Concordat (the agreement between the Italian state and the Vatican) does not recognize the degrees of Catholic universities.

With the university's emphasis on theological themes (it has the largest library faculty in the world) its bulk of students are sponsored by dioceses or religious orders who often select "bright" students for a "Roman education"—a virtual prerequisite for promotion into the higher echelons of the ecclesiastical hierarchy.

This current student population is made up of 465 ordained priests, 440 seminarians and 571 friars and nuns. The remaining "outdoor" students are principally from Third World countries where a degree at the Gregorian is considered particularly prestigious.

Father Filippo Solvaggi, the general secretary of the university, said: "In the faculty of social sciences, for example, we have a total of 23 students. Of these 14 are African, mainly from Nigeria and Ethiopia. Many of them return to their countries with a degree that enables them to obtain an excellent teaching job."

The increased access of Third World students to an ecclesiastical education is part of the Vatican's efforts (in direct result of the economic council's deliberations) for closer ties with the developing world. Yet it has also caused discontent among professors who find some of their new students insufficiently prepared for tertiary education.

"Often one has to devote an unusually large amount of attention to such a student—at the cost of others. Quite a few arrive with education certificates we have to accept, only to discover their holders have insufficient basic education", one professor said.

'We have sent students back to their countries with a political pass, so they don't return home frustrated with ideas of European chauvinism.'

Staff admit that even the Gregorian has used the dubious practice of so-called "political passes"—a practice common at state universities in Italy where professors eager to avoid friction with belligerent student factions, hand out borderline passes.

We have preferred to send students back to their countries with a "political pass", so they won't go back home completely frustrated with ideas of European chauvinism", a professor admitted.

Father Solvaggi, who is also professor of philosophy, admits that the Gregorian could comfortably with dozens to eastern bloc countries. In addition, the "filtrations" of Third World countries with Marxism required a more elaborate

knowledge of the philosophy from priests.

Padre Gustav Wetter, head and founder of the centre, said: "Marxism to many people is still a myth. It is important to destroy this myth and show people how Marxist works."

German-born Padre Wetter, a diminutive man with an easygoing smile, is a professor of philosophy and a specialist in Marxist thought.

For example, Dr Boorstin has always balanced his celebration of America with something approaching despair at the failure and superficiality of aspects of the national life and character.

On the one hand Dr Boorstin is scathing about his professional colleagues—before coming to Washington and public service he taught for many years at the University of Chicago—whom he criticised for their lack of television in their lecture halls.

He has not abandoned the themes he has long sustained in his work as an academic historian. The one is that the American national experience is very special, and it gives rise to an optimism about the American future, about technology and national unity, that is like a beacon to the rest of the world.

The singular character of some of the essays in this recently published book, *The Republic of Technology*, is explained by the fact that they were originally prepared for the Bicentennial Year, 1976, before the situation in the United States crept into double figures and the dollar began its precipitous decline. Yet through them is a typical Boorstin optimism.

He is fascinated by the links between Europe and America, how, as he once wrote, "the image of Europe has given us our bearings and yet how un-European is the pattern of our life and the pattern of our history". Indeed world history and commentator has drawn the lines of convergence. Every morning he is in his study before 5.30 am to attend a couple of hours on it before attending to the "great cultural resources" on Capitol Hill. The book is going to be a world history starting from the "particularity of experience, the poignant aroma of life" is sure to give the American experience a very special place.

The *Republic of Technology*, Reflections on Our Future Community, Harper and Row \$8.95.

David Walker talks to Daniel Boorstin

Historian keeper of America's books

The Librarian of Congress of the United States has been a distinguished breed and, naturally, Daniel Boorstin, the twelfth in line since President Thomas Jefferson made the first appointment in 1802, is an exception. It is said the director of this great library have always been professionals or scholars, not poets with a broad vision. Henry Manfield, Dr Boorstin's predecessor, was an example of the former; Archibald MacLellan, the latter.

Nowadays the Librarian occupies a position at the centre of American scholarship and so close to the heart of American political life that he can be as much a symbolic intellectual leader as a keeper of the books. This is a role Dr Boorstin has not shirked. In fact the optimistic Boorstin vision of American national purpose and character perhaps makes him the man for the job in these difficult post-Watergate years.

The three years since Dr Boorstin was appointed is probably too short a time in which to judge, from a professional standpoint, the changes in library organization and functioning that are going on under his direction. But what is clear, from



Daniel Boorstin.

his speeches and writings, is that he has not abandoned the themes he has long sustained in his work as an academic historian. The one is that the American national experience is very special, and it gives rise to an optimism about the American future, about technology and national unity, that is like a beacon to the rest of the world.

The singular character of some of the essays in this recently published book, *The Republic of Technology*, is explained by the fact that they were originally prepared for the Bicentennial Year, 1976, before the situation in the United States crept into double figures and the dollar began its precipitous decline. Yet through them is a typical Boorstin optimism.

He is fascinated by the links between Europe and America, how, as he once wrote, "the image of Europe has given us our bearings and yet how un-European is the pattern of our life and the pattern of our history". Indeed world history and commentator has drawn the lines of convergence. Every morning he is in his study before 5.30 am to attend a couple of hours on it before attending to the "great cultural resources" on Capitol Hill. The book is going to be a world history starting from the "particularity of experience, the poignant aroma of life" is sure to give the American experience a very special place.

The *Republic of Technology*, Reflections on Our Future Community, Harper and Row \$8.95.

He is fascinated by the links between Europe and America, how, as he once wrote, "the image of Europe has given us our bearings and yet how un-European is the pattern of our life and the pattern of our history". Indeed world history and commentator has drawn the lines of convergence. Every morning he is in his study before 5.30 am to attend a couple of hours on it before attending to the "great cultural resources" on Capitol Hill. The book is going to be a world history starting from the "particularity of experience, the poignant aroma of life" is sure to give the American experience a very special place.

The *Republic of Technology*, Reflections on Our Future Community, Harper and Row \$8.95.

He is fascinated by the links between Europe and America, how, as he once wrote, "the image of Europe has given us our bearings and yet how un-European is the pattern of our life and the pattern of our history". Indeed world history and commentator has drawn the lines of convergence. Every morning he is in his study before 5.30 am to attend a couple of hours on it before attending to the "great cultural resources" on Capitol Hill. The book is going to be a world history starting from the "particularity of experience, the poignant aroma of life" is sure to give the American experience a very special place.

The *Republic of Technology*, Reflections on Our Future Community, Harper and Row \$8.95.

Amaze, and a host of other marks, and reaches such heights that the sometimes seems like the celebrant of some joyous cult.

At first glance, Dr Boorstin's seasonal seersucker suit and red polka dots do not make him an unlikely candidate for punditry or technocracy. Now 74, he is, despite the computer terminal in his library of Congress office from which he can play straight into the central library catalogue a man for the ages. No, his feeling for the technology which has made the United States into a world power is intellectual.

In his book he argues a conception of technology as "technique for bringing more unexpectedness", and also, paradoxically, as an agent for social unification. In an age when the cost of the machine, its pollution, its responsibility for alienation are often stressed, the Boorstin view is still fresh with the opportunities a technological civilization possesses for social harmony and existential excitement. First and foremost, it is a vision of American opportunity—and by extension—a pattern of opportunities for other countries to follow or reject.

It would be misleading, however, if citing such passages made Dr Boorstin appear some unqualified optimist of *The Republic of Technology* a simple pasture without shadows. On the contrary, Dr Boorstin has been previously director of the National Museum of History and Technology, can stray too far from the path of social thought laid down by the Library's great founder, Thomas Jefferson. Jefferson had a strong sense of social order and the limits of social progress. Dr Boorstin, in contrast, is more of a social engineer, and indeed one of whose first major works was a study of the man, would probably follow him quite a way.

For example, Dr Boorstin has always balanced his celebration of America with something approaching despair at the failure and superficiality of aspects of the national life and character. On the one hand Dr Boorstin is scathing about his professional colleagues—before coming to Washington and public service he taught for many years at the University of Chicago—whom he criticised for their lack of television in their lecture halls.

He has not abandoned the themes he has long sustained in his work as an academic historian. The one is that the American national experience is very special, and it gives rise to an optimism about the American future, about technology and national unity, that is like a beacon to the rest of the world.

The singular character of some of the essays in this recently published book, *The Republic of Technology*, is explained by the fact that they were originally prepared for the Bicentennial Year, 1976, before the situation in the United States crept into double figures and the dollar began its precipitous decline. Yet through them is a typical Boorstin optimism.

He is fascinated by the links between Europe and America, how, as he once wrote, "the image of Europe has given us our bearings and yet how un-European is the pattern of our life and the pattern of our history". Indeed world history and commentator has drawn the lines of convergence. Every morning he is in his study before 5.30 am to attend a couple of hours on it before attending to the "great cultural resources" on Capitol Hill. The book is going to be a world history starting from the "particularity of experience, the poignant aroma of life" is sure to give the American experience a very special place.

The *Republic of Technology*, Reflections on Our Future Community, Harper and Row \$8.95.

He is fascinated by the links between Europe and America, how, as he once wrote, "the image of Europe has given us our bearings and yet how un-European is the pattern of our life and the pattern of our history". Indeed world history and commentator has drawn the lines of convergence. Every morning he is in his study before 5.30 am to attend a couple of hours on it before attending to the "great cultural resources" on Capitol Hill. The book is going to be a world history starting from the "particularity of experience, the poignant aroma of life" is sure to give the American experience a very special place.

The *Republic of Technology*, Reflections on Our Future Community, Harper and Row \$8.95.

He is fascinated by the links between Europe and America, how, as he once wrote, "the image of Europe has given us our bearings and yet how un-European is the pattern of our life and the pattern of our history". Indeed world history and commentator has drawn the lines of convergence. Every morning he is in his study before 5.30 am to attend a couple of hours on it before attending to the "great cultural resources" on Capitol Hill. The book is going to be a world history starting from the "particularity of experience, the poignant aroma of life" is sure to give the American experience a very special place.

The *Republic of Technology*, Reflections on Our Future Community, Harper and Row \$8.95.

College that wanted to be a poly

John O'Leary on the confident future of Ealing College

Any notion that the colleges and institutes of higher education are mere last remnants of institutions is quickly dispelled by a visit to Ealing College. As if to underline the diversity of the new sector, Ealing is one of a small group of former technical colleges which has turned into a school of education, instead of a broad spread of courses, ranging from cake decoration to modern European studies.

The only connection with teacher training is a thriving course in English as a second language, which is now one of the college's most popular courses. The first polytechnic was founded in 1966 and instead the college was given the dubious title of "specialist centre for higher education" the meaning of which has since been forgotten even by the Department of Education and Science. More recently it was to become an institute, via a merger with Thomas Huxley College of Education, and finally, last year, it was designated a college of higher education. Much to the surprise of some staff, roadsigns still point the way to Ealing Technical College.

The question of polytechnic status has been asked officially but there is an unspoken feeling of indignity that the college should have been passed over, or the obvious intention to rectify this omission. It is easy to sympathize with this point of view, for there are many points of similarity between Ealing and the smaller polytechnics.

The college would certainly not be embarrassed by its standards in such company and, despite some criticism over resources at the time of its last biennial review, it enjoys a well-established and amiable relationship with the Council for National Academic Awards. Mr Merritt, the college's director, admits that while no efforts are being made to change the college's new designation, both he and the majority of staff would welcome polytechnic status if the number of institutions was ever extended.

However, for the time being at least, Ealing has thrown its lot with the colleges. Mr Merritt has taken on the crucial role of secretary to the Standing Conference of college principals and directors and a comprehensive and ambitious development plan for the college is expected to be adopted by the governors next month. The plan, which together with an assessment of current work, sets out a number of proposals to expand the work of the college markedly over the next four years. It is an approach which has the support of student and staff alike.

Several unusual features stand out on a visit to the college, the most striking of which is the number of overseas students. They are not filling up empty course places but taking part in a network of well-established visits which can involve Chinese, Vietnamese, Russians, Americans, French, Germans and Mexicans, among others. As Mr Merritt says, the college has all the ingredients of the third world war, although in practice many of the different nationalities never meet because they are in self-contained groups.

The hotel school, with its popular restaurant and international reputation, is another aspect of the college which inevitably creates the interest. Mr Victor Cesarani, the head of school who is also the author of best-selling cookery books, cannot keep pace with applications for places on courses which presently include a higher national diploma course and to which he would like to add a degree. The quality of the



Neil Merritt—would welcome polytechnic status.

the budget would damage standards to the point of endangering degree status.

Since then, however, money has been made available in correct some of the "grave deficiencies" in library provision and non-academic staff establishment criticized by the CNA. Relations have improved considerably and there is optimism that the development plan will be approved.

Today the college, which is in its 50th year, has 5,200 students, of whom 1,800 are full time. It operates on two sites, one in Ealing itself housing the administration, languages, humanities, law and social sciences, hotelkeeping and catering, the other in Acton, presently shared with the Thomas Huxley College and housing liberal studies, economics and business administration and management. The large majority of even the full-time students hail from London and the Home Counties, although the college is to rely on word of mouth to produce its applicants.

There has been no shortage of students, Mr Merritt is delighted that the college has increased for every course, including some, such as humanities, where a national reputation exists in the college. Ealing has acquired a reputation for personal attention in its studies which, together with traditionally high standards in particular areas, is confidently expected to stand it in good stead during the troublesome years to come.

Several unusual features stand out on a visit to the college, the most striking of which is the number of overseas students. They are not filling up empty course places but taking part in a network of well-established visits which can involve Chinese, Vietnamese, Russians, Americans, French, Germans and Mexicans, among others. As Mr Merritt says, the college has all the ingredients of the third world war, although in practice many of the different nationalities never meet because they are in self-contained groups.

The hotel school, with its popular restaurant and international reputation, is another aspect of the college which inevitably creates the interest. Mr Victor Cesarani, the head of school who is also the author of best-selling cookery books, cannot keep pace with applications for places on courses which presently include a higher national diploma course and to which he would like to add a degree. The quality of the

can only be remedied with the aid of a considerable injection of capital, is in its student facilities. Accommodation, while not a serious problem at present, is only provided on a very small scale by the college itself, and any comparison with even the smallest polytechnics would be less than favourable where student union facilities are concerned. There is no room for large meetings or social events and the staff-student club, though undoubtedly good for relations, is not what the students would want if ever money was available to provide them with a building of their own.

This, however, is something of which the college administration is conscious and which could be attended to if expansion plans go ahead. In other respects, there is little doubt that Ealing is well equipped to meet the demands of the 1980s as an institution which has identified the areas of potential for higher education and set about developing them in a coordinated and well-planned manner.

West Building, St Mary's Road

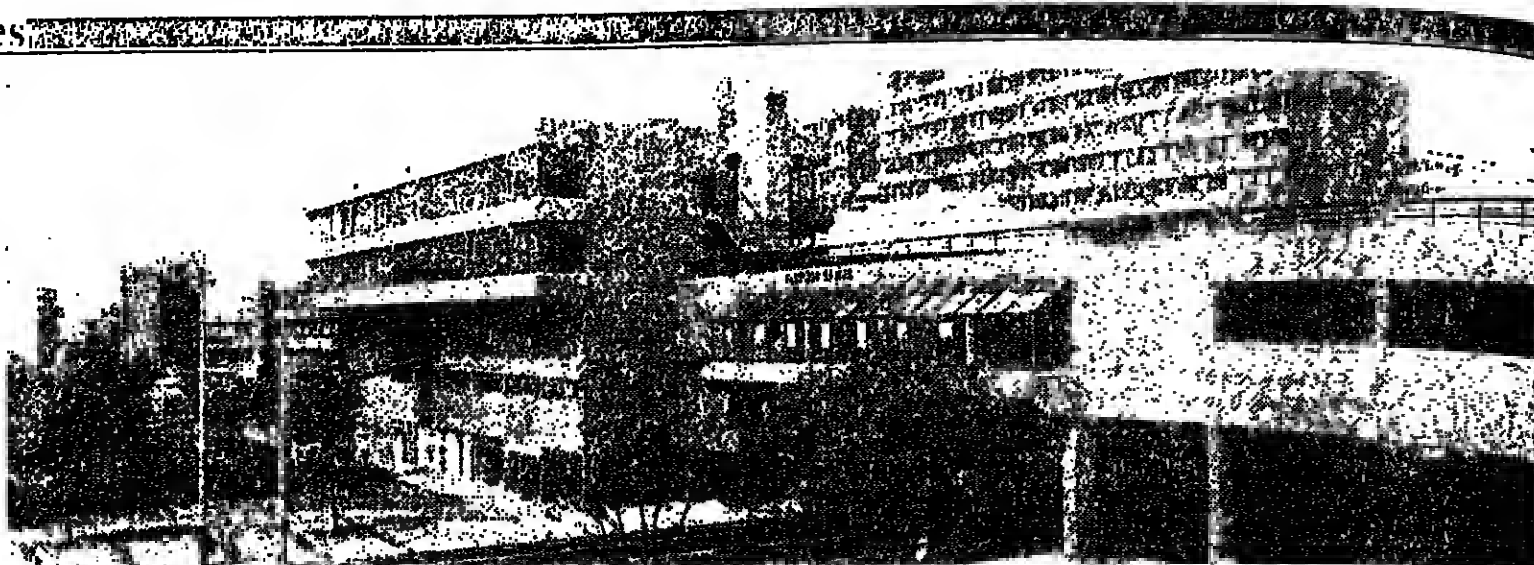
can only be remedied with the aid of a considerable injection of capital, is in its student facilities. Accommodation, while not a serious problem at present, is only provided on a very small scale by the college itself, and any comparison with even the smallest polytechnics would be less than favourable where student union facilities are concerned. There is no room for large meetings or social events and the staff-student club, though undoubtedly good for relations, is not what the students would want if ever money was available to provide them with a building of their own.

This, however, is something of which the college administration is conscious and which could be attended to if expansion plans go ahead. In other respects, there is little doubt that Ealing is well equipped to meet the demands of the 1980s as an institution which has identified the areas of potential for higher education and set about developing them in a coordinated and well-planned manner.

West Building, St Mary's Road

The Civic Universities

In the first of a new series Ngaio Crequer visits Manchester where the authorities have adopted a policy of campus involvement with the public



The pre-architect centre which aims to coordinate higher education and public buildings, private and public transport and open space

Creating the right mix of town and gown

Superlatives roll off Northern tongues at Manchester University. Wherever you go someone will claim that their building or department is the first, biggest or best although there is still a reluctance to make any claims in the heavy stakes. There is a kind of Muhammad Ali mentality about the place. Manchester is the first of the civic universities and began modestly enough in 1851 on the proceeds of a legacy left by merchant John Owens of £97,000 for "educational purposes hereafter appointed." Those were the days of Cobden and Bright, the Manchester School of the realists, the Corn Laws, free trade and parliamentary reform. The heart of the reform movement was still in Manchester and that city (or at least its middle classes) took a fierce pride in their contributions to the prosperity and social and economic progress of Britain.

Owens College began in a rented house, which had once been Richard Cobden's. Quay Street, off Deansgate. There were five professors and 62 students. It moved to its present site in 1873. It was established as the founding college of the Victoria University in 1880 and was subsequently joined in a federation with the colleges at Liverpool and Leeds. But the university gained its independence in 1903 when it was constituted as the Victoria University of Manchester.

The student population is now 11,000 and will be up to 11,700 by 1981-82. The current first-year entry is 2,980. Eleven per cent of all Manchester students are from overseas. University income, including fees and University Grants Committee allocation, is £30.2m this year.

As the university grew it acquired a formidable reputation in research, particularly in the sciences and at different times could boast of its famous names such as Lord Rutherford, Sir John Stoddard, Sir Lewis Namier and Sir Samuel Alexander. Although this is not without its disadvantages—current staff would prefer to be judged by the present rather than past.

The university is currently preparing its submission for the next UGC quinquennial visit in March. In the interim, it has expanded by almost 2,000 students, which is the largest numerical expansion of any non-federal United Kingdom university in the period.

The Department of Education and Science discussion paper, Higher Education into the 1990s, is not highly regarded at Manchester. "It's no Robins," says Professor Arthur Armitage, the vice-chancellor, with dismissive understatement. He is critical of the paper because it concerned itself too much with student numbers and ignored the wider social and economic and technological changes that must come. He thinks these changes will ensure that universities stay popular and may even increase the demand for graduates. If it is going to be chips (of the silicone sort) with everything then university education will be at a premium.

Professor Armitage says that the science and technology departments must be done at the big provincial universities because only they have the resources. It will presumably not be too long before a new science building appears on the end of his UGC shopping list. Manchester does not anticipate any problem of under-utilisation after 1981-82 although the nature of that utilization may change considerably. Discussion has begun on the best way to provide for more students and to offer a wider variation of options for part-time students.

At present only 7 per cent of Manchester's students are mature students, an admittedly low figure. But Manchester has a large and thriving extra-mural department. Adults can study for a university extra-mural certificate by attending a two or three year part-time course. These can include essays, examinations, practical work and even dissertations and the gaining of this certificate can count in relation to entry to the university as a mature student on a degree course. Dr Alex Wilson, deputy director of the department thinks that this experience gained over the years could be vital in the development of

new courses for mature students and part-timers. The extra-mural department runs 600 courses a year and almost 14,000 people take part. They also use Holly Royde College which is used for residential courses involving the general public which range from one day to three years.

Since 1971-72 the department has been running three courses a day for people who are unemployed. About 1,000 people have attended in that time. Currently the courses are aimed at the professional and executive class. The department would like to extend it to the young unemployed but it is already "hurrying to the scene".

The aims of the courses, said Dr Wilson, are to improve the morale of the unemployed, to help them to find jobs as well as good as the ones they had before and to show them how to present themselves in the best light. There are also refresher studies in management. "Seventy or 80 per cent of the people on our courses are back at work within three months, compared with the national average of 30 per cent."

"The problem generally is a lack of accommodation, and the need for more full-time staff. As long as the university was paying up new buildings we could try to claim part of them. But now we have to run to room to manoeuvre."

The department is still maintaining its numbers despite the economic squeeze of the past few years but Dr Wilson has noticed that courses for the general public have stopped expanding while those for the specialist have increased. As more people are interested in obtaining qualifications there is a tendency to go back to the longer courses. Courses, which were once predominantly night-time activities are now becoming day and night-time.

A working party to examine the question of part-time degrees was set up following publication of "Higher Education into the 1990s". Its terms of reference are to advise the vice-chancellor on the provision of part-time courses including degree, post-experience and extra-mural courses, and to examine the feasibility of extending such provision having regard to all the circumstances, in particular the expected pattern of higher education in the 1990s, the position of mature students and the requirements, including the transfer of academic credits.

The working party will make recommendations which initially will be circulated to the faculties for their reaction. What is clear is that there will be no pressure to extend into this field if they are unwilling. But there is some hope within the university that the first part-time degrees will be introduced by 1981-82.

For such a traditional university Manchester has acted quickly in responding to the possible future pattern of higher education. Although working parties at Manchester have suffered the criticisms levelled at Royal College, it looks as though you are doing something, keeps the male antagonists happy and takes years before something, if anything, follows as a result.

A number of new courses for undergraduates have been introduced to increase flexibility. Manchester reacted to the national discussion on the future of higher education by introducing interest in modern languages by bringing in joint honours courses, but still retaining single honours. Students can now, for example, study German with French, French with Russian, or Spanish with French, and they are still three-year courses. The first subject is a major, the second a minor.

There has been a general growth in joint honours degrees in both science and arts, and an attempt, such as mathematics and social science, to bridge the two. There has been an increasing emphasis on broadly-based courses.

About five years ago the university introduced an honours course in Combined Studies, which is slowly developing. Students generally study three subjects in the first two years and specialize in two of them in the third year. There are restrictions but

nearly 50 courses are on offer. The general arts degree has now gone.

But not all experiments in new subjects or combinations are immediate successes. An honours course in philosophy and politics which started this session began with only one student.

A much-heralded four-year degree course in speech pathology and therapy has been introduced in the department of audiology and the education of the deaf; this is one of only two such departments in the country. There is an MSc in community medicine for graduates in medicine and other departments.

In science the principal is a core subject with a built-in flexibility with a number of options. The idea is that up to a third of a course can be replaced with options outside the parent department and in some of the courses this remains so for all of the three years.

A number of new degrees have been introduced involving computer science, such as computer science with psychology, computer science with mathematics. There is also an elite engineering degree, manufacturing and management, run jointly by Manchester, UMIST and the Manchester Business School.

"The major feature of the last quinquennial was the development of the medical school. A huge building was provided at a cost of £12.7m, with two miles of corridors and 3.75 miles of laboratory benches. One recently qualified doctor said: "I think I only ever saw 30 per cent of it. It is a building to get totally lost in."

It is the largest medical school in Europe and will produce 275 doctors a year. There was local rivalry at one stage with Salford for the honour, saying it had better teaching hospital potential, but Manchester disputed this and got the go-ahead. Four months after the white-hot scanner was installed Manchester had installed one and is now helping to pioneer the technique.

The medical school places great store on its updated curriculum. It sends fourth-year students to district general hospitals for the full year to give them a 24-hour type feel to get used to and allow them to follow cases through.

A new examination system is also being introduced. Continuous assessment has been replaced by what Professor F. R. Bewick, dean of the medical school, calls "continuous assessment". Previously students could exempt themselves from some year-end examinations if by methods of continuous assessment, they showed themselves to be up to scratch. Now the examination is done and students are given informal "feedback" assessments by their tutors.

Research is still one of Manchester's strengths and the variety of it is enormous. Jodrell Bank has more than £3m to complete its telescope network. Marine technology researchers, working with other northern universities, are investigating the idea of a "human" in the sea for deep-sea divers, which would include a kitchen and dining room among other things.

A motor-cycle research unit has been set up. The Haier Adrian Research Centre has achieved an international status in its work for the mentally handicapped. A research consultancy service set up five years ago is now staffed on research carried out in collaboration with other bodies, on contracts and postgraduate students. Last year 21 patent applications were filed through it.

In 1977-78 there are 1,777 postgraduates, which is 16.7 per cent of all full-time students. In addition the university has approximately 700 part-time postgraduates. But Manchester, along with other universities, has been sorely hit in this area and is making plans gradually to increase its numbers of postgraduates. The projection for 1981-82, 2,000 which will be a percentage of 17.0 of the total student population. According to its submission to the UGC for the 1977-78 quinquennial postgraduates were 20,79 per cent of total numbers.

But certainly the feeling in Manchester now is that the worst is over. The freezing

of up to 40 posts in 1972-73 and 1973-74 brought economies but contributed to a strong sense of uncertainty. The university dipped into its reserves in 1975-76 to create 30 new posts and this year there are 31, 11 of them support staff.

Sir Arthur warned about the danger that continuing economies would have on the quality of teaching and research when he made his annual report in 1974-75. But by 1977 he was able to talk about the "vigour and strength" of research activity.

Staff student ratios have deteriorated over the past five years by a point. It ranges now from at best 6:1 in clinical medicine up to as much as 12:1 or 13:1 in some arts or humanities subjects. In 1971-72 the ratio for the university as a whole was 7:1, which had declined from 6:1 in 1967-68.

Staff have noticed their workload increase. Dr Peter Lowe, a senior lecturer in history, says he is now on average teaching for 11 hours a week, three more than five years ago. He says the increase is general in his history department.

There are now ten people in a tutorial, compared with six or seven last year. We are getting worried about the size of some of our groups. We are getting to the limits." The situation is made worse because there has been a general tendency to move away from the big lecture towards smaller size. Dr Peter Lowe says he has now moved to a small lecture, compared with six or seven last year. We are getting worried about the size of some of our groups. We are getting to the limits."

The regularization of a leave of absence system, a gain of the last UGC visitation, has also made the situation more difficult. In the case of the previous visitation, when leave of absence was given to departments, leave was now automatically given (though not always taken)—a term off for three years, two terms for six years. If, as sometimes happens, the leave is saved up, in cable connections, research, then staff have difficulties in covering for their colleagues.

Unusually there are criticisms of the lack of auxiliary staff and the back-up support. There has also been a general deterioration in the provision of staff communal facilities such as places to eat.

On academic development Manchester likes the wheels to turn slowly and sometimes they have been known to stop completely. Nevertheless, the university has made some of the changes in academic processes, albeit untested, thrown up in the wake of the new visitation.

In 1969 the senate instituted a working party to carry out an inquiry into matters relating to the academic assessment of students. It made an interim report to senate in 1972 and made its final recommendations in June 1974, when it became known as the Rivierick report.

The report stated: "Although there is some evidence that examinations in novel examining techniques are being carried out, the university as a whole remains conservative in its examining procedures."

The working party was not only concerned to make its own assessment of different examining methods. It was interested to find out what practices actually prevailed. They looked at the form of final examinations, the papers and how final examinations, the use of external examiners, the examination of projects, the use of course assessment, methods of informing new members of staff about departmental standards and practices and the equivalence of standards from year to year.

The working party found that the traditional three-hour examination was still firmly established but that dissertations, projects, practical and oral examinations were common use and counted. In varying degrees towards final classification.

But it found that there was not much evidence of the use by departments of continuous assessment in the sense of judgments of performance in seminars or tutorials by individual members of staff and indeed came to the view that this should not be incorporated into the classification structure.

The Civic Universities

The reasons given were that it altered and weakened the relationship between teacher and student, it placed too much pressure on the student and it could not be assessed by the external examiner and was too subjective. But the working party made a distinction between the kind of continuous assessment used in degree classification. The assessment of such coursework should be properly made, should be available to the external examiner, and should not be carried out at such frequent intervals that it seriously interferes with the student's freedom to determine his own work-pattern.

Clearly Manchester was not in a mood to change its time-honoured means of assessment and indeed, with a working party including Professor Brian Cox, of the Faculty of Science, it was obviously always unlikely. But there was an overwhelming desire for change, apart from the student contingent which argued that classification of degrees should be abandoned altogether. It was also the case that there was no immediate and bulky variety of procedures used within different departments, with varying degrees of involvement in making decisions about setting examination papers, dealing on the spot of marked coursework and saying whether evidence should count in judging borderline cases.

At the risk of being accused of a lack of leadership, senate decided to continue to rely on the initiative of individual departments, but the working party made one recommendation which was universally welcomed and was seen as a way to meet a criticism of allowing departmental initiative, that of involvement within the university. There was some concern about the variety in results, but it was felt that as much flexibility as possible should be allowed in the way the same chance as staying in honours courses.

The working party recommended that no irreversible decision should be made in June of the first year and that flexibility should be maintained in the second year by carrying over 1st honours into a seasonal examination, which would allow September or March entry.

By and large the first year has been achieved but there has been little move on in the second. Certainly for the majority of arts courses preliminary honours has now become a first year examination and students can now move on to the second year without having to sit a preliminary examination. But there is certainly student concern about the second year and its opportunities to sit. It is particularly in the sciences that it is possible in some departments but not in others.

Professor P. Bromley, pro-vice-chancellor and chairman of the staff student consultation committee, recognizes the charge that the university is not doing enough to help students decide this for themselves. Our anxiety was to get the honours to sit at once. Senate has agreed to consider it if they want to change this."

In the early part of this decade Manchester introduced its part-time and change which was not universally welcomed was the creation of departmental boards.

Where their introduction professors would be able to run their departments without having to consult or discuss matters with departmental boards. But the view is that the departmental boards have not been able to do this. Our anxiety was to get the honours to sit at once. Senate has agreed to consider it if they want to change this."

The board has power to review the teaching in the department and to advise the pro-vice-chancellor on the department. The allocation of duties among the academic staff, the allocation of duties among technical staff, the allocation of duties among research, space, finance and apparatus and departmental development.

And professors are not automatically chairmen. The board elects the chairperson. According to statute the board's powers are advisory but as Peter Lowe says: "In the end, the board has largely accepted what the department says. So we have moved from what was down in the constitution. And most of us have seen this as a development."

Further up the pyramid of university management little has changed. Although the representation on this body has changed considerably to about 14, 4 of them are now from the faculties. The pro-vice-chancellor says the biggest problem in the system is that of the 14, 4 of them are now from the faculties. The pro-vice-chancellor says the biggest problem in the system is that of the 14, 4 of them are now from the faculties.

But the use by departments of continuous assessment in the sense of judgments of performance in seminars or tutorials by individual members of staff and indeed came to the view that this should not be incorporated into the classification structure.

But the use by departments of continuous assessment in the sense of judgments of performance in seminars or tutorials by individual members of staff and indeed came to the view that this should not be incorporated into the classification structure.



The main building of the old guild

regional officer, full-time, representing the north-west and based in Manchester.

What it would like to see within the university is a procedural agreement drawn up which would specify the consultation and negotiation rights. As one lecturer put it: "The university still thinks it is adequate to invite AUT representatives to explain their views and for them to withdraw while the committee decides."

The council took at Manchester University on its own. The university campus stretches towards the city and meets the University of Manchester Institute of Science and Technology (UMIST) and the polytechnic on the way. A total of 25,000 students more or less in one long line.

As Mr John Crosby, director of the department of building services, puts it: "That is half of Old Trafford. But you do not feel like a football match and everything is in walking distance."

The planning of the education precinct has been governed by two main desires: to keep a unitary whole but also to keep the campus as open to the public as possible. The doors of its continuing expansion on one point is that it becomes an educational island in the middle of Manchester.

The university is built on both sides of Oxford Road, a busy street which leads into the city centre. Ideally, with an open plan university the aim is to encourage movement through the university from the outlying suburbs of Hulme and Fallowfield.

As the university grew outwards there was some feeling of resentment as it encroached more and more on outlying working class communities, even though some could only be described as slums. The university claims nevertheless always to have got on well with the city ("we are the largest ratepayer") and it is now probably true that by moving inwards towards the town centre they are helping to solve inner city problems by bringing people and life back.

Manchester town hall had its confidence shaken by the reaction to its indoor shopping centre, the Arndale Centre which has violated the skyline and has contributed to a run-down of minor city centre streets.

The Manchester Education Precinct plan was an exercise in planning modernity into the old university. The Manchester Institute of Science and Technology, Manchester Corporation and the United Manchester Hospitals. The plan was devised in 1967 and revised in 1974. It was to be "one of the boldest European concepts in educational planning."

The precinct covers 280 acres, one and a quarter miles long and a third of a mile wide, with an estimated projected population of 41,000, the size of a small town. The aim is to coordinate major higher education developments with public buildings, in plan land-use, private and public transport and open space. Mistaken, of course, have been made but the plan has helped to revitalize and improve the appearance of a vast area of Manchester.

Many of the university buildings are, of course, open to the public. The museum is open during office hours and up to 2 pm on Wednesday evenings. The Whitworth Art Gallery, the Manchester Museum and the University Theatre are obviously open to public support. But the university has also to consider the problems of security and vandalism. The social and educational desire to open up the university has to be balanced by the physical control that creating a town and government becomes a management problem.

Both the city and the university have been able to come together to try to solve some of their housing problems. Manchester has always had a student accommodation problem and the use by students of properties in the city and the university has been a problem since 1970. It could then offer only a third of its students places in university-owned halls of residence or flats and the rest had to compete in a decreasing private market.

well he that it will one day go under the bulldozer to make way for new buildings for the over-stretched drama department.

Demolition then was clearly unpopular in a public mood of conservation. But it was also clear that there would be very little money available from the University Grants Committee for new buildings. So the policy became one of upgrading and renovation. Buildings once scheduled for demolition, such as the old medical school and the Dover Street buildings, which house the faculty of social and economic studies, have all been upgraded.

The students at Manchester are quiet. The burning issue of the day for the students' movement, Government proposals for the funding of student unions, attracted a spate of interest from three students at a recent meeting. Clean-cut Conservatives have gradually taken over from long-haired lefties. One aging ultra-leftist, the kind of one who once seems to open half a lifetime, mourned: "Nobody even knows how to organize campaigns any more or write leaflets. All that experience has gone."

A great deal of effort seemed to be spent on an internal dispute of ludicrous proportions. A general meeting changed the constitution such that a chairperson elected from the floor of such a meeting would chair meetings of union council and executive. The problem was, having changed the constitution, they could not get a quorum for a subsequent GM and meetings of council and executive could not take place.

But one issue seems to have atoned the test of time and that is the protest against university investment in companies or the subsidiaries with interests in South Africa. A new divestment campaign is beginning this session and the Manchester Connection becomes news again.

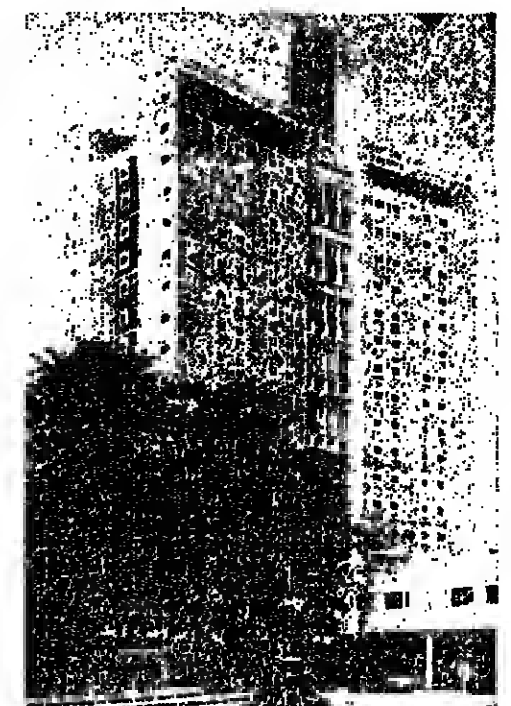
But it will be many years, judging the current mood, before students at Manchester consider making the Whitechapel (the main administrative block) their home again for a two-week occupation. Although even when this was the vogue Professor Sir Aitken established a certain reputation for dealing with them. At the beginning of one such strike, the doors of the Whitechapel were shut. To prevent forced entry anybody entered they were opened. And, so student myth goes, they also put the kettle on for them.

The student education officers over the past have impressed the university with their diligence. This year Manchester published the first postgraduate alternative prospectus, an attempt of the usual undergraduate prospectus. They are pressing ahead with their ideas on better teaching methods, representation and academic assessment. Certainly relationships between union and university are more relaxed.

The students' priority for many years, and which is now at the top of the university's list is an extension to the student union building. The present union tent built to cater for just over 4,000 students. The extension was scheduled for 1966 but Manchester may have to wait until the early 1980s before the UGC gives the go-ahead.

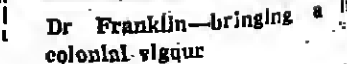
Just after year of delay Manchester is now building a £4 million extension to the John Rylands University Library. The Mirfield Stott conference centre, attached to the library, has just been built thanks to a private benefaction. That opens on October 30th. The Whitford Committee recommended that the library have dormitory status. The library will be the biggest university library on one spot and many are saying that it will overcome the debt to be the second best of its kind in the country.

After several years of severe economic Manchester University is now consolidating its position and looking forward to expansion once again. Like, no doubt, Muhammad Ali it will not be content to rest on its laurels but instead is preparing itself to look towards new directions as the pattern of higher education changes.



Owens Park student village

The author has been working as research assistant to a professor at the European University Institute.



The author lectures in a department of chemistry at Sofia University.

BOOKS

On forgotten ground

Heidegger
by George Steiner
Harvester Wheatsheaf, £6.50 and Fontana
Modern Masters, £12.50
ISBN 0 2557 643 6 and 01 63324 1
Martin Heidegger: basic writings
edited by David Farrell Krell
Routledge & Kegan Paul, £7.50 and
£4.50
ISBN 0 7100 8645 8 and 8646 6

George Steiner opens his study of Heidegger in the *Modern Masters* series by a discussion of the reasons against writing a brief introduction to his thought: together they amount to a formidable indictment of an obscure, repetitious and possibly now thoughtless. Yet Steiner, like so many others since the publication of *Being and Time* in 1927, is irresistibly attracted, or perhaps better drawn against his will, into confronting this enigmatic figure. For I think it is impossible to be neutral about Heidegger, to regard him as just another philosopher to be considered on the same level as all the others who have written or who are writing in the present. Of course he is monstrously unkind to his predecessors, either dismissing them or distorting their radically and sometimes doing both. Only the pro-Socratica escape condemnation entirely, and their utterances that survive are sufficiently gnomic to be susceptible of almost any interpretation. But being unfair to other philosophers is an occupational disease in the profession.

The question that confronts the reader of Heidegger, particularly if he is himself a philosopher, is whether he is to be called one in any sense, or whether he is engaged in a quite different enterprise. Gilbert Ryle, in a contemporary review of *Being and Time*, treated the work as one of philosophy, but possibly leading to "disaster and bankruptcy" and liable to end in "self-referential subjectivism" or in a "windy-windmill" "subjectivism". "Gnomic analysis" have been inclined to dismiss him altogether, though it is significant that Wittgenstein's one reference is respectful: "I can well understand what Heidegger means by 'Sein' and 'Angewandte'." He goes on to give an example of what Heidegger means by 'Sein' and 'Angewandte'.

This remark has led some writers to compare the two philosophers. Certainly it is correct to describe Heidegger as a linguistic philosopher, perhaps as one who gives a higher place to language than anyone else. But his attitude is nevertheless polemic, not from that of Wittgenstein. The latter talks of "language-games" which consist of a language and the actions into which it is woven, and this is part of his whole attempt to bring language down from the metaphysical heights, back to the ground of human practice, to show that metaphysics is the result of it "falling". Heidegger, in a message translated in the *Basic Writings*, says, and it is worth quoting him at length:



Martin Heidegger

If we may talk here of playing games or not, it is not via who play with words; rather, the essence of language plays with us, not only in this case, not only now, but long since and always. For language plays with our speech—it likes to let our speech drift away into the more obvious meanings of words. It is as though man had to make an effort to leave language, to get back to the roots of language before it has been corrupted by human understanding.

Here language is placed above man, and the constant etymology of Heidegger indulges in is part of the attempt to get back to the roots of language before it has been corrupted by human understanding.

The sources of corruption that he chiefly discusses are philosophy and technology, both of which tend to lead us away from "Being" which is not so much the goal of man's search as his forgotten ground. True philosophy does not progress; thinking is not an "irreversible" activity, but a "moderation" of "Being". As he writes in the *Basic Writings*, "The essence of philosophy is not to progress; it is to be a 'moderation' of 'Being'." It is never becomes clear what "Being" is; it is not the Christian God, not a creator, but the ground. It is not to be worshipped, but man is the shepherd of Being, and its expression is language.

In so far as Heidegger's thought has progressed, the development has consisted in a reluctance in the amount of philosophical ornaments and a turn to a kind of poetic prose. Being and Time is recognizably a work in the tradition of poetry, albeit a dense and sometimes impenetrable volume. The reader is liable to lose his way because of the complexity of the thought. In much of his later work, for example in some of the essays included in *Basic Writings*, the impression is of being led down an obscure forest path and into occasional clearings where there is a patch of brilliant illumination. The problem is whether the path is the only way to the clearing, and whether the illumination is genuine. There seems no way of arguing with Heidegger; he must be accepted or rejected. Some who resent the peculiar difficulty of conventional philosophical find this attractive;

others see it as dangerous mysticism. The attack on technology which is so explicit in nearly all of Heidegger's writings is liable to offend many sympathizers. There is perhaps the most sinister element. For in the same area is to be found the most "Nazi" element of his thought. In a passage from lectures delivered in 1935 and published by Heidegger in 1953 there occurs a reference, quoted by Steiner, to the "inner truth and essence" of National Socialism. All those who write on him have to confront his relationship to Nazism. I agree with Steiner that what he may have said or done in 1933-34 is not of great importance; yet Germans welcomed the national self-renewal which Hitler seemed to offer.

More questionable is his failure to make any comment on the years 1933-45 after the war. Perhaps the destruction of the "commissariat" Jews did not seem serious to him; in the absence of evidence it is impossible to tell. But the "inner truth" of Nazism involved "the encounter between global technology and modern man", and in the same work Heidegger talked of Germany being squeezed in the pincers between America and Russia, representative of the same "inner technological frenzy, the same unrestricted organization of the over-age man". It is as resistance to this, as affirmation of values that have been neglected in the modern world, though he would have rejected the attempt to get back to the roots of language before it has been corrupted by human understanding.

The sources of corruption that he chiefly discusses are philosophy and technology, both of which tend to lead us away from "Being" which is not so much the goal of man's search as his forgotten ground. True philosophy does not progress; thinking is not an "irreversible" activity, but a "moderation" of "Being". As he writes in the *Basic Writings*, "The essence of philosophy is not to progress; it is to be a 'moderation' of 'Being'." It is never becomes clear what "Being" is; it is not the Christian God, not a creator, but the ground. It is not to be worshipped, but man is the shepherd of Being, and its expression is language.

Once having understood, or come to believe that one has understood, any text of Heidegger it is hard not to be drawn into his orbit. There is the danger, however, that this is not to be a liberation, but a new form of imprisonment. The 57 volumes are too much to constitute a mistake. For anyone who wants to take the risk of reading Heidegger these two books will find an excellent introduction; I think David Krell has selected wisely to give a good sense of Heidegger's style as a thinker. It would recommend the reader to start with "The Origin of the Work of Art" or "The Letter on Humanism". Though there are a few issues of "Being and Time" over, George Steiner provides a readable and certainly the best introduction to a difficult thinker.

Anthony Manser

True or false?

Truth and Other Enigmas
by Michael Dummett
Duckworth, £18.00
ISBN 0 7156 0997 1

This book includes most of Professor Dummett's published essays and two essays which are published for the first time.

The collection as a whole expresses Dummett's conviction that the analysis of language is fundamental to metaphysics and all other branches of philosophy. He holds, more particularly, that philosophy is a rational activity, and that it is not just a matter of adopting a method and applying it to a set of problems. He holds, more particularly, that philosophy is a rational activity, and that it is not just a matter of adopting a method and applying it to a set of problems.

This conviction informs even those sections of the book which are primarily critical rather than constructive. Among these are a review of Gellner's attack on Oxford philosophy in the 1950s, a second and somewhat more critical review of some of his own criticisms of the unsystematic character and other features of the so-called "ordinary language" school—all of which are interesting additions to the philosophical literature. His criticisms of the unsystematic character and other features of the so-called "ordinary language" school—all of which are interesting additions to the philosophical literature.

The core of Dummett's philosophy of language in its present form is the result of his critical reflections on three pillars of Frege's doctrine, namely the principle of bivalence, the thesis of the molecular structure of language and the distinction between the sense and the reference of linguistic expressions. According to the principle of bivalence every sentence is either true or false, in the sense that the conditions for the truth of a sentence are determinate either fulfilled or not fulfilled, even when knowledge as to whether or not the condition is fulfilled is unavailable. According to the thesis of the molecular structure of language the content of a sentence depends only on its constituent parts and its atomic component sentences. According to the distinction between sense and reference every sentence has a sense and a reference, and the sense is what is referred to by the sentence, while the reference is what the sentence is about.

Once having understood, or come to believe that one has understood, any text of Heidegger it is hard not to be drawn into his orbit. There is the danger, however, that this is not to be a liberation, but a new form of imprisonment. The 57 volumes are too much to constitute a mistake. For anyone who wants to take the risk of reading Heidegger these two books will find an excellent introduction; I think David Krell has selected wisely to give a good sense of Heidegger's style as a thinker. It would recommend the reader to start with "The Origin of the Work of Art" or "The Letter on Humanism". Though there are a few issues of "Being and Time" over, George Steiner provides a readable and certainly the best introduction to a difficult thinker.

Dummett's fundamental modification of Frege's theory consists in his rejection of the principle of bivalence and the notion of truth and falsehood which it incorporates.

In this he follows the intuitionist philosophers of mathematics who replace the notion of a mathematical truth or falsehood by a mathematical statement or proposition which is either provable or disprovable.

But Dummett's position differs from the intuitionist in two important respects. On the one hand he is not merely concerned with replacing the classical notion of mathematical truth by a notion of mathematical provability, but with replacing the general notion of truth by a notion of provability, as employed in classical logic, by a general notion of justified assertibility. On the other hand he rejects the intuitionist reasons, which are based on Kant's transcendental aesthetic, but for Wittgenstein (not Wittgenstein's) reasons, which are rooted in the conviction that the meaning of the expressions of a determinate philosophy of language would have to exhibit the connection between meaning and use.

The abandonment of Frege's principle of bivalence leaves the other two principles essentially intact. Dummett exemplifies this by arguing against various forms of holism which are incompatible with his thesis of the molecular structure of language, and the distinction between sense and reference as both as against analyses of proper names as having reference but no sense.

Dummett holds that a philosophy or constructive theory of meaning is the foundation and not, as is usually assumed, a consequence of a priorist or constructivist metaphysics. And he believes that philosophy is a rational activity, and that it is not just a matter of adopting a method and applying it to a set of problems. He holds, more particularly, that philosophy is a rational activity, and that it is not just a matter of adopting a method and applying it to a set of problems.

Whatever the reply to this, other objections which may be made to the reader of the book can be no doubt about their value to philosophy and philosophical scholarship.

Stephan Körner

Wearing his empiricism with a difference

Concepts and Categories: philosophical essays
by Isaiah Berlin
edited by Henry Hardy, with an introduction by Bernard Williams
Harvard Press, £8.50
ISBN 0 7012 0440 0

Isaiah Berlin began his academic career as a junior fellow of All Souls engaged on research in philosophy. It was not long, however, that he was devoting himself to a project which, in his own words, "was wholly outside" the scope of his proper studies, the life and thought of Karl Marx. For a few years before and after the war Sir Isaiah Berlin was an Oxford philosopher, and his attitude to the controversy provoked by the intellectual ascendancy of logical positivism. But already before the war he had his discussion with philosophy as

he knew it had been, during his conversation with H. M. Sheffer, who convinced him that "Concepts and Categories" would be the ruin of "real philosophy" and "thanks to his own efforts, the philosophy would be no more than a collection of poetry, added to the store of positive human knowledge". Sir Isaiah wanted to work in a field in which he could reasonably hope to know more about the man whose career began at the beginning, and whose career he followed with a devotion to the history of ideas.

It is perhaps not surprising in these circumstances that Sir Isaiah was content to allow publication of the present volume of his philosophical papers. But he was persuaded to do so by Henry Hardy, his general editor, and by Bernard Williams, who was involved as a judicious arbiter. Williams's introduction, in favour of publication, is simply justified by the result. The three papers from which it is compiled, Sir Isaiah's philosophical

papers, which no longer command the interest they did, verification, phenomenology, "logical translation". But they are written with a freshness and a punch, to say nothing of a wit, which make them well worth reading. The horror of metaphysics which was a constant theme of the youthful Professor Berlin, but the view that philosophy is a rational activity, and that it is not just a matter of adopting a method and applying it to a set of problems.

It is perhaps not surprising in these circumstances that Sir Isaiah was content to allow publication of the present volume of his philosophical papers. But he was persuaded to do so by Henry Hardy, his general editor, and by Bernard Williams, who was involved as a judicious arbiter. Williams's introduction, in favour of publication, is simply justified by the result. The three papers from which it is compiled, Sir Isaiah's philosophical

papers, which no longer command the interest they did, verification, phenomenology, "logical translation". But they are written with a freshness and a punch, to say nothing of a wit, which make them well worth reading. The horror of metaphysics which was a constant theme of the youthful Professor Berlin, but the view that philosophy is a rational activity, and that it is not just a matter of adopting a method and applying it to a set of problems.

It is perhaps not surprising in these circumstances that Sir Isaiah was content to allow publication of the present volume of his philosophical papers. But he was persuaded to do so by Henry Hardy, his general editor, and by Bernard Williams, who was involved as a judicious arbiter. Williams's introduction, in favour of publication, is simply justified by the result. The three papers from which it is compiled, Sir Isaiah's philosophical

papers, which no longer command the interest they did, verification, phenomenology, "logical translation". But they are written with a freshness and a punch, to say nothing of a wit, which make them well worth reading. The horror of metaphysics which was a constant theme of the youthful Professor Berlin, but the view that philosophy is a rational activity, and that it is not just a matter of adopting a method and applying it to a set of problems.

It is perhaps not surprising in these circumstances that Sir Isaiah was content to allow publication of the present volume of his philosophical papers. But he was persuaded to do so by Henry Hardy, his general editor, and by Bernard Williams, who was involved as a judicious arbiter. Williams's introduction, in favour of publication, is simply justified by the result. The three papers from which it is compiled, Sir Isaiah's philosophical

BOOKS

Industrialism and its contradictions

Progress and the Future of the Industrial Society
by Krishan Kumar
Allen Lane and Penguin, £7.95 and £3.50
ISBN 0 7139 1146 8 and 14 032039

Sociology in its most general form has always been concerned to chart the course of industrialization and anticipate its future. Unsurprisingly, it has committed itself to predictions, taking a new turn and envisaging the growth from the industrial present of a "post-industrial" future. In the United States, Western and Eastern Europe, and social workers are the latest victims of its all-pervasive nature in this new type of social system. It will be a system based on science, on the ascendancy of theory over empiricism, on a general restructuring of power around the idea of knowledge, on a redeployment of work away from manufacturing and towards services; on an enormous extension of professionalization and social welfare. Scientists and experts of all kinds will become the key social group, and the institutions of their power will be the decisive social institutions. The central concern of *Progress and the Future of the Industrial Society* is to assess the plausibility of this vision: the critique is both theoretical and empirical and on both counts is compelling.

The book's strongest empirical achievement is perhaps to disprove the claim that the growth of a service economy can be seen as a symptom of any sort of new social order. To begin with, the movement towards service occupations is not a new phenomenon, but a long-standing feature of industrial societies. The book's strongest empirical achievement is perhaps to disprove the claim that the growth of a service economy can be seen as a symptom of any sort of new social order. To begin with, the movement towards service occupations is not a new phenomenon, but a long-standing feature of industrial societies.

which nineteenth-century sociologists lived, have progressively taken shape since their time and are realities for us. Despite the theoretical nihilism of sociological orthodoxy, the Joseph and Jeremiah of early social science seem to have sensed the tendencies of industrialization very acutely indeed.

And if they could perceptively anticipate a remote future why should not their heirs renew the work of social prediction today? Since that sociological prediction has in fact come back into favour, taking a new turn and envisaging the growth from the industrial present of a "post-industrial" future. In the United States, Western and Eastern Europe, and social workers are the latest victims of its all-pervasive nature in this new type of social system. It will be a system based on science, on the ascendancy of theory over empiricism, on a general restructuring of power around the idea of knowledge, on a redeployment of work away from manufacturing and towards services; on an enormous extension of professionalization and social welfare. Scientists and experts of all kinds will become the key social group, and the institutions of their power will be the decisive social institutions. The central concern of *Progress and the Future of the Industrial Society* is to assess the plausibility of this vision: the critique is both theoretical and empirical and on both counts is compelling.

The book's strongest empirical achievement is perhaps to disprove the claim that the growth of a service economy can be seen as a symptom of any sort of new social order. To begin with, the movement towards service occupations is not a new phenomenon, but a long-standing feature of industrial societies. The book's strongest empirical achievement is perhaps to disprove the claim that the growth of a service economy can be seen as a symptom of any sort of new social order. To begin with, the movement towards service occupations is not a new phenomenon, but a long-standing feature of industrial societies.

Under lock and key

Locking Up Children: secure provision for the child-care system
by Stephen Gillies, Roger Bullock and Kenneth Heston
Allen Lane, £6.50
ISBN 0 566 00170 5

It is perhaps fitting that this book should be published on the occasion of the official opening of a new secure treatment complex at Aylesbury. There has been much concern about the high cost of secure provision, but the authors are not so concerned with economy as with the morality and politics of locking up children within a secure system.

More importantly, however, they also argue that there are no essential differences between children in secure care and those in more open establishments, and that children are generally no worse than they have been in the past. What does characterize children in secure units is the level of social work intervention and the potential transfer of children from school to school before to more secure commitment. The authors do not suggest that secure provision is not needed. Rather, that it could be used more sparingly and more rationally if certain changes were made. These would include employing and training more staff and making a definitive statement as to the purpose of secure provision.

The relevance of this book is that it not only provides us with some basic and useful information about secure provision, but also raises wider social, moral and political questions about how such provision should be organized. It is a more important determinant of the future of the social, personal and environmental characteristics of children than the future of the social, personal and environmental characteristics of children than the future of the social, personal and environmental characteristics of children.

It is perhaps fitting that this book should be published on the occasion of the official opening of a new secure treatment complex at Aylesbury. There has been much concern about the high cost of secure provision, but the authors are not so concerned with economy as with the morality and politics of locking up children within a secure system.

More importantly, however, they also argue that there are no essential differences between children in secure care and those in more open establishments, and that children are generally no worse than they have been in the past. What does characterize children in secure units is the level of social work intervention and the potential transfer of children from school to school before to more secure commitment. The authors do not suggest that secure provision is not needed. Rather, that it could be used more sparingly and more rationally if certain changes were made. These would include employing and training more staff and making a definitive statement as to the purpose of secure provision.

The relevance of this book is that it not only provides us with some basic and useful information about secure provision, but also raises wider social, moral and political questions about how such provision should be organized. It is a more important determinant of the future of the social, personal and environmental characteristics of children than the future of the social, personal and environmental characteristics of children than the future of the social, personal and environmental characteristics of children.

Participation in unions

The Working Class in Welfare Capitalism: work, unions and politics in Sweden
by Walter Korpi
Routledge & Kegan Paul, £9.50
ISBN 0 7100 8848 5

In the middle 1960s the Swedish Metal Workers' Union commissioned an investigation into the background of unofficial strikes in the metal working industry in that country. As part of that enquiry Walter Korpi, with the aid of some sociology students, administered an anonymous questionnaire between October 1966 and March 1967 to some 4,000 employees of the 15 most "strike-prone" firms at the time, each matched by size, technology and as many other factors as possible, with a firm characterized by a low level of reported unofficial strikes.

The great bulk of the directly collected, empirical information about Swedish workers in this book thus comes from this survey; and although the author has tried to weave this into a coat of more than one colour by including information on voting for the Swedish parliament from 1911 to 1976 and on the social origins of members of the Social Democratic government from 1917 to 1976, as well as by references here and there to other surveys, many of them carried out by sociologists in Britain, the implications of his tabulated data must be read very cautiously, with the limitations of industry and time in mind, in addition to those of the generally unsatisfactory nature of enquiries carried out by this device in this manner.

For example, Korpi used just three questions as "rough indicators" of perceived membership influence in the union. For the book he similarly used a team for concentrating on Yugoslav as the prototype of workers' participation in socialist development in so-called "Communist" societies. Sociologists selectivity often offers a much "rather pessimistic view" of the possibilities for rank-and-file membership in the future, and generally

tried to feel that the union leadership is rather distant from the members. This, of course, may well be true but it is very doubtful whether it is a conclusion which logically follows from such material as Korpi has. I think that the average members have enough influence in the Metal Workers' Union? The reader is entitled to ask the Professor of Social Policy at the Swedish Institute of Social Research, Korpi, to make more of it.

The fact that 21 per cent of Korpi's trade union respondents could not answer the equivalent questions about their union, although honestly reported in the book, is not taken into account. I think the author who, after all, has the intention here of drawing conclusions from his survey which will throw light on the state of the working class as a whole in welfare capitalist societies generally. While there is something to be said for setting such a subject in the context of a discussion of the Marxian and Weberian approaches to class conflict (chapter one), the relevance of information about the working class in the local community in order to provide a realistic picture of the union movement for decrease among them, while labour movement support can be expected to increase. Studies of the Israeli kibbutz would not seem to hold out hope of such a conclusion, and it is very much upon to question whether the Yugoslav youth will be so keen to participate in the running of workers' councils as their parents. The whole question of future developments lies necessarily in the hands of present young people and there is very little to look to justify such optimism.

J. A. Banks

THE 1930's

Just published
The 1930's: A Challenge to Orthodoxy
John Lewis (ed.)
£8.50

HARVESTER PRESS

Classified Advertisements Index

Universities

Universities

Higher Education, by the Chinese Academy of Sciences, Peking, and the University of Leicester, Leicester. The Universities and the Polytechnics in the United Kingdom, by Professor Wallace Pearson, of the University of Ulster, Derry. E.C. 12. 1971. 160 pp. 10s. 6d. Texts and applications forms from the Leicester Leavers' Department of English and Mathematics, Loughborough University, Leicestershire, LE11 3TTL.

★ ★ ★

Medical Education and the Health Care ★ ★ ★
The subject of the present conference is the Association for Medical Education in Europe, organized in conjunction with the Hellenic Association for Studies in Medical Education, to be held in Athens from September 18-20, 1971 in Athens, Greece. The aim of the conference will be to explore the relationship between medical education and health care in different countries in Europe. It will provide the opportunity to review evidence that is of importance in respect of undergraduate medical education, and to consider the continuing fall to meet the requirements of medical services. Further information from the Administrator, ASME, Department of Psychiatry, Royal Brompton Hospital, Northcote Road, London, W11 0BPP.

★ ★ ★

is Investigation of the pharmacological response and pharmacokinetics of nura-

Microfilms. — Dr A. P. Cracknell £36,359 from the Ministry of Defence in connection with his research into the multidisciplinary scanning of the North Sea from satellites and correlation with sea truth data.

Miscellaneous Administration. — Professor E. A. Haimson £1,453 from the Social Work Research Council in connection with her work on the study of the roles of staff in voluntary organizations concerned with the personal services in Scotland.

Exeter

Education. — Dr R. A. King of £19,436 from the SRC for a study of the structural and organizational change in Secondary Schools.

Survey

Civil engineering. — Dr B. Meuzel £41,518 from the Department of the Environment for work on the application of programmable control techniques in structural design. Dr I. Holle £11,400 from the SRC for the work on the structural tests of pultruded fibre reinforced plastic materials.

Electrical and electronic engineering. — Professor W. T. King, £7,000 from Standard Telephones and Cables, for work on automatic detection of faults in the transmission of signals. £7,567 from the Ministry of Defence for work on an adaptive digital filter; Mr W. Matley £10,455 from the Ministry of Defence for work on the automatic recognition and transcription of manual signals. £1,000 from the Ministry of Defence; Mr Q. V. Davis, £16,085 from the National Grid Board, for work on the design of a power line communication system.

Metalurgy and material technology. — Mr M. G. Bador, £7,459 from the Ministry of Defence for work on the design of CR6 tubes; £22,363 from the Ministry of Defence for work on the study of fatigue crack growth in GFR composite loading and environment; Professor J. Bailey, £11,884 from the Ministry of Defence.

COURSES

Biochemistry - Professor V. Bhat
 £2,565 from the Humane Research
 Trust, for work on a project to con-
 tribute to the elimination of experiments
 on live animals; Professor V. Bhat,
 £23,516 from Carls Erba for work on
 immunology reagents.

**A NEW
 RESIDENTIAL
 FIELD CENTRE . . .**

... situated in the Cotswolds, 19 miles
 in the foothills of the Oxford County and
 for adjoining the Great Ouse and
 the Northampton Canal. This fine
 location will give the centre a very
 attractive appeal to zoologists. The Field
 Centre, adjacent to pub., sport, and
 other facilities, accommodates up to 45
 people, in twin rooms, with a lecture
 teaching room and basic laboratory
 facilities.

**Contact Colin Burgess, Veroch Field
 Centre, Postpodge, Pizze, Veroch,
 11 Humbleton, Tel. 0352 25314, ext.**

Appointments vacant Universities	Colleges and Ins Higher Educat
-------------------------------------	-----------------------------------

Appointments wanted
Other classifications
 Awards
 Announcements
 Exhibitions
 Personal
 Courses
 Holidays and Accommodation

**University of
Newcastle upon Tyne**

**MSc in
EDUCATIONAL PSYCHOLOGY**

Applications are invited for the two-year full-time course in Educational Psychology to begin in 1979. It is recognized by the British Psychological Society as a professional training course for Educational Psychologists. Applicants should hold an Honours Degree in Psychology or its equivalent and have at least a limited teaching experience. Attendance on the course is normally financed by recruitment from Local Authorities on the designated pooling arrangements. Candidates should make their own approach to Local Authorities regarding possible secondment. SRSC Studentships can also be sought by suitable candidates.

Application forms may be obtained from the Director of The University, 6 Kensington Terrace, Newcastle upon Tyne NE1 7RU, or from the publicity bulletins should be sent to the same address.

Further information may be obtained from the Department, Mr. D. F. Moseley, Reader in Psychology, University of Newcastle upon Tyne, 6 Ridley Building, Claremont Place, Newcastle upon Tyne NE1 7RU. Applications should be received by 31st

UNIVERSITY OF

SOUTH PACIFIC

The Applications are invited for the post of **ASSISTANT PROFESSOR IN EDUCATION—(COMMERCIAL AFFAIRS AND SCIENCE). EXPERIENCE** Post 708-1 The applicant will be responsible for coordinating the Diploma in Education—Commerce module program. This programme is of three years duration, two-academy, subject-wise and designed to prepare diplomates to teach commerce subjects (book-keeping, office practice, marketing and other subjects) in junior secondary schools.

The applicant will be responsible for the curriculum and the administration of the programme. He/she should be qualified to teach one or more of the subjects, such as law, economics, accounting, etc., and will be expected to draw upon his/her personal resources of the university to execute the curriculum.

APPLY TO: Head of Department of Education
PROFESSOR R. S. THOMPSON, Lecturer,
Department of Business School, University of South Pacific, Suva.
The applications are sought with an emphasis in Clinical/Absorption but also on Lecturing at graduate level in other areas of business such as General Economics, Managerial Economics, Quantitative/Physiological Methods/Accounting, Sales Management, etc.

TELEPHONE NO. 6918-100
RESIDENCE Proteas
MAILING ADDRESS: Suite 708-K0616
P.O. Box 149, Koroiko Road, P.O. Box 149, Suva FJ 4000
TELEPHONE 8137
G.W.E.M.T. may apply by mail to the Director of HRD, P.O. Box 2352, Suva (referring application or Quota Number) or e-mail (reviewed annually) from all over children's education holiday village and Family passage; and medical and regular overseas allowances, Oatlands, 12 months with children and naming a relative as beneficiary for the family.

teachings of all the students—approximately 60 students in the first three years of the program—will also be expected to assist in other subject areas linked by discipline and culture in the university's education programmes. A good bachelor's degree is the minimum qualification required, although an advanced degree or certificate in teaching or equivalent is preferred. Three years of professional work with a view to the acquisition of commercial/industrial experience or teachers' experience will be an advantage. Salary: P75,640-P110,600 p.a. (for students) and P161,610 p.a. (for teachers). The Irish Government may supplement salary in year 2, 1992, to P125,000 (for teachers) and P100,000 (for students) up to the maximum of P144,192 p.a.

provided unusually and normally for the first time in the history of Jean's international alliances and boldstep vital passages. In addition to the already mentioned, the use of gradually, superimposition contribution, applicants' allowances, partly furnished accommodation at a maximum rental not exceeding 124 per cent of salary; this is the revised figure. The offer will be for a contract period of three years and will be renewed by mutual agreement in the absence of detailed applications. 12 per cent of the curriculum vitae and a photograph of the applicant should be sent direct to Registrar, University of Cambridge, 2, Cavendish Road, Cambridge, CB2 3RQ, or to the Registrar, St. Paul's, Fiji, by 1 December, 1978. Applicants resident in the U.K. should send an application to the Registrar, University of Cambridge, 2, Cavendish Road, London, NW1 3PL. Further information may be obtained from either address.

Applications are invited for the vacancy of Senior Lecturer in Applied Mathematics at the University of London. The holder of the post will be responsible for the Applied Mathematics Department and a Ph.D. student. The successful candidate will work with the Department in contact with Professors Roscoe, Tompkins, on pure mathematics, and with the staff of the Institute of Mathematics and Statistics, University of London, on applied mathematics. The appointment is for a period of up to ten years. The salary scale is £24,300-£36,000 per annum. The successful candidate, if arranged, will be on a full-time basis. The salary up to £24,300 per annum is guaranteed for the first two years. Further particulars of the post can be obtained from the Officer, University of London, 1, Gower Street, London WC1E 6BT. The closing date is 31st January 1979. The successful candidate should be a citizen of the United Kingdom or a Commonwealth citizen.

Polytechnics continued

KINGSTON POLYTECHNIC

Applications are invited for

HEAD OF SCHOOL OF GEOGRAPHY

BURNHAM HEAD OF DEPARTMENT GRADE VI £9,642-£10,602 inclusive

Further details and application forms (to be returned as soon as possible) from Academic Registrar, Dept. AO, Kingston Polytechnic, Penrhyn Road, Kingston upon Thames, KT1 2EE. 01-648 1366.

CITY OF LONDON

POLYTECHNIC
SIR JOHN CARR SCHOOL
IN ART

Applications are invited for the post of Head of School of Art in the City of London Polytechnic. The successful candidate will be responsible for the overall management and development of the School of Art, including the recruitment and supervision of staff, the development of courses, and the provision of a high standard of teaching and learning. The candidate should have a minimum of 10 years' experience in a similar post, and a degree in Art or a related subject. The salary is £9,642-£10,602 inclusive. Further details and application forms (to be returned as soon as possible) from the Academic Registrar, Dept. AO, Kingston Polytechnic, Penrhyn Road, Kingston upon Thames, KT1 2EE. 01-648 1366.

COVENTRY

THE LANCET
POLYTECHNIC
ASSISTANT SUBJECTS
LABORATORY

Applications are invited for the post of Assistant Subject Laboratory in the Coventry Polytechnic. The successful candidate will be responsible for the overall management and development of the Subject Laboratory, including the recruitment and supervision of staff, the development of courses, and the provision of a high standard of teaching and learning. The candidate should have a minimum of 5 years' experience in a similar post, and a degree in a related subject. The salary is £9,642-£10,602 inclusive. Further details and application forms (to be returned as soon as possible) from the Academic Registrar, Dept. AO, Kingston Polytechnic, Penrhyn Road, Kingston upon Thames, KT1 2EE. 01-648 1366.

Colleges and Institutes of Technology

Lothian Regional Council

NAPIER COLLEGE OF
COMMERCE AND TECHNOLOGYLECTURER A IN
CIVIL ENGINEERING

Salary on scale £4,029-£7,110 (Bar)—£7,638

to lecture in Civil Engineering to Diploma and Certificate students. Applicants should possess an Honours degree and preferably should have had some site experience.

LECTURER A IN
ILLUSTRATION PROCESSES
AND GRAPHIC REPRODUCTION

Salary on scale £4,029-£7,110 (Bar)—£7,638

to teach Higher Diploma courses in Printing and Publishing and Photography in the above subjects. Previous industrial and teaching experience in printing or publishing is essential. Applicants should possess a degree and/or equivalent professional qualifications.

Application forms and further particulars from:
THE ACADEMIC REGISTRAR
Napier College of Commerce and Technology
Cantrion Road, Edinburgh, EH10 5DT

sandwell

Metropolitan Borough Council

DEPARTMENT OF EDUCATION

Warley College of Technology

Principal

Applications are invited for the post of Principal of the above College, which is in group 5 (group 6 solicited at next review) and has two departments: Education, Personnel Section, P.O. Box 41, West Bromwich, West Midlands B70 8RG.

G. A. Bainsdon,
Director of Education.

Colleges of Higher Education

GWENT COLLEGE OF HIGHER EDUCATION

Faculty of Art and Design

Senior Lecturer/
Course Director in Fashion

Salary £6,051 to £7,065 (progression by two increments to £7,572 subject to standard of work)

A very special person is being sought for the position of creative design tutor in the Fashion Area of the Gwent College of Higher Education, Faculty of Art and Design (formerly Newport College of Art and Design). The person appointed to this senior post will have the experience and flair to undertake the responsibility for high-level design tuition. He or she will also have a considerable influence on future course development in a changing situation.

The Faculty offers high-level courses recognized by the CMAA, the University of Wales and the Society of Industrial Artists and Designers.

Further information and application forms from:
The Principal/Administrative Officer,
GWENT COLLEGE OF HIGHER EDUCATION
College Crescent, Caerleon, Newport, Gwent NP6 1XJ
Telephone: (0633) 421292

Returnable within 14 days of the appearance of this advertisement, together with a curriculum vitae.

LIVERPOOL INSTITUTE
OF HIGHER EDUCATION(A Federation of Christ's, St. John's and
Notre Dame Colleges)APPOINTMENT OF
RECTOR

APPLICATIONS are invited from suitably qualified and experienced persons who are practising Roman Catholics or Anglicans for the post of Rector of the new Liverpool Institute of Higher Education. The Institute, comprising the three Voluntary Colleges of Christ's, St. John's and Notre Dame Colleges, offers a unique and exciting educational and academic venture. Course programmes, B.E.D., B.A. and Diplomas, are validated by the University of Liverpool to which the college are affiliated.

It is expected that the salary will be £12,500 and that the successful applicant may be able to assume the office as from April 1st, 1979, or a mutually agreed date.

Further details may be obtained from the Clerk to the Governing Council, c/o Christ's College, Woolton Road, Liverpool L16 8ND.

Closing date for applications: Tuesday, 7th November, 1978.

TRINITY
AND ALL SAINTS'
COLLEGES

Trinity and All Saints' Colleges, affiliated with the University of Leeds, form an independent institution providing studies leading to B.A. (Classical), B.Sc. (Computer) and B.A. (General) at the University of Leeds. The candidate appointed will be expected to teach to honours degree level, to participate in course development and to contribute to course development and research.

Applications are invited for the post of

LECTURER II/SENIOR LECTURER
IN ECONOMICS

with interests in one or more of the areas: general macro-economics, monetary economics, public finance and fiscal policy, economic planning and growth.

Salary scale in the range: Lecturer II, £4,101-£6,598; Senior Lecturer, £6,599-£9,096.

Further particulars and application forms, which should be returned by 14th November, 1978, are obtainable from:

The Registrar (Applications),
Trinity and All Saints' Colleges,
Brownbarrie Lane,
Horsforth,
Leeds LS16 8ND

The Rose Bruford College
of Speech and Drama
Lecturer II in
Mime/Movement

Applications are invited for the

above post to teach

Mime/Movement and some

Voices within the College

from January 1st 1979.

Suitable applicants should

have wide experience of

working in the Theatre as

well as teaching, particularly

at student level.

Letters of application together

with a detailed Curriculum Vitae

and the names of two referees, to

reach the Registrar, The

Rose Bruford College of Speech

and Drama, Lambour Park, Sidcup,

Kent, by 10th November

1978.

Enclose S.A.E.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

HAMPSHIRE
Southampton College of
Higher Education
Principal Lecturer
in
Marine Engineering

Applications are invited for the

above post to teach

Marine Engineering

courses to D.O.T. Officers

and Engineer Cadets.

Applicants should have

further details from the

Principal, Southampton

College of Higher Education,

East Park Terrace,

Southampton SO9 4WY

(please include stamped

addressed A4 envelope) to

whom they should be

returned within 14 days of

the appearance of this

advertisement.

Enclose S.A.E.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

charitable institution

and is not a

commercial enterprise.

The College is a

Overseas

Forms to be returned by 15 November 1978.

A selection of the world's finest teaching aids — on microfilm

NEWSPAPER ARCHIVE DEVELOPMENTS LTD., publish a selection of the world's most important newspapers and magazines, on microfilm. In many cases we can supply the complete backfile of our publications, enhancing their value as research sources and teaching aids.

NEWSPAPERS AND MAGAZINES

THE TIMES, THE TIMES LITERARY SUPPLEMENT, THE TIMES EDUCATIONAL SUPPLEMENT, THE TIMES HIGHER EDUCATION SUPPLEMENT, THE SUNDAY TIMES, FINANCIAL TIMES, DAILY and SUNDAY TELEGRAPH, THE SCOTSMAN, BELFAST TELEGRAPH, EVENING STANDARD, LLOYDS LIST, LE MONDE, LE MONDE DE L'EDUCATION, LE MONDE DIPLOMATIQUE, JOURNAL DE GENEVE, THE AGE (MELBOURNE), STRAITS TIMES (SINGAPORE), BANGKOK POST, AL-AKHBAR (CAIRO), MIDDLE EAST ECONOMIC DIGEST, SAUDI ECONOMIC SURVEY.

We also publish THE TIMES INDEX and OBITUARIES FROM THE TIMES, in hard cover.

MICROFILMED COLLECTIONS

In addition to the titles listed above we are also selling agents for the microfilmed collections of RESEARCH PUBLICATIONS INC. U.S.A. These important titles include THE BURNEY COLLECTION OF EARLY ENGLISH NEWSPAPERS, GOLDSMITHS-KRESS LIBRARY OF ECONOMIC LITERATURE, THE HISTORY OF PHOTOGRAPHY, AMERICAN FICTION (1774-1910), GERMAN BAROQUE LITERATURE, RUSSIAN REVOLUTIONARY LITERATURE and many more collections of European history and literature.

Full details and prices of all our products are available from:—



David Robson

Newspaper Archive Developments Limited

Holybrook House, Castle Street, Reading RG1 7SN, England
(0734) 583247

LETTERS TO THE EDITOR

Environmental science degree courses

We were disturbed to read *THE TIMES* (September 15) the comments of the Council of Environmental Science and Technology has put forward for advising prospective students against taking courses in environmental science. Our experience at Plymouth over the past five years has been that our environmental science graduates are in demand and that many employers seem to prefer them to specialists, precisely because of the breadth of their undergraduate education.

Similarly, our graduates seldom have trouble in obtaining places on postgraduate courses leading to professional qualifications. Much of the material on many of these courses has already been covered by our graduates in their final year options, in a scientifically rigorous manner, and in a way which is far more sophisticated in environmental terms.

Dr Arnold Robinson's remarks in the *Chemical Industry* reflects a social science graduate's view of environmental science graduates often end up in jobs which are not "environmental" but which involve an understanding of what environmental science is. It is precisely because specialists have attempted to solve environmental problems in the past, and largely failed, that we need more, not less, cross-trained environmental scientists. As pointed out by Sir Leon Britton, the range of problems that environmental scientists need to understand is very great. How then can people trained in narrow specialisms hope to understand them?

Environmental problems need to be tackled by scientists who appreciate the complexity and subtlety of the environment. These experts, as the environment can then join professions such as engineering, and help them reconcile their basic concepts and aspirations with the demands of the environment. What is needed is for each environmental science graduate to receive a rigorous interdisciplinary undergraduate training upon which to base his or her subsequent professional career.

Whether profession they then choose they will pursue it in a dispassionate manner, which takes full account of the environment and its needs. As the impact of technology increases society will need more scientists and technicians in both the public and private sectors who are able to operate in this way. The question of whether their educational background is "environmental" or not is a red herring.

At Plymouth we have rejected the idea that environmental science is a subject which consists of a "patchwork" of other disciplines. Instead, we have defined the basic concepts and techniques of environmental science, and put them to work in the coherent foundation year courses which introduce students to the discipline of environmental science. We have in this way achieved the coherence and identity which is said such courses often lack while sacrificing none of their depth and diversification.

In their final year our students specialise in three areas of environmental science in order to achieve the expertise needed to deal with "real-world" problems. However, we ensure that in the course of

such specialization they do not lose the ability to relate their specialist knowledge to the wider aspects of their subject, so that they remain environmental scientists in the true sense of the term.

Yours faithfully,
P. R. O'SULLIVAN,
D. L. WIGSTON,
School of Environmental Sciences,
Plymouth Polytechnic.

Sir,—I am writing the letter of P. A. Robinson, in careers for environmental scientists, and your article on "Demand for graduates" (*THE TIMES*, October 13th) and we have a paradox, Mr Robinson is concerned that environmental scientists are either not getting "good" jobs or, indeed, get jobs with "an environmental content", whereas the article is concerned that there are "substantial vacancies" in management, personnel, computing, etc., to attract graduates from other disciplines.

The thesis of Mr Robinson is (a) that environmental science graduates are disadvantaged in the job market, and (b) that it is some kind of failure if they obtain a post not immediately related to their degree studies. We can only say that (a) is not true for graduates from our (BSc) Environmental Science Degree at Plymouth Polytechnic. It is important that the nature of environmental science study is fully explained to potential employers, and this is achieved by visits, active careers service and (probably most effectively) by detailed information in any letter of reference. Having secured an interview our graduates find that their breadth and depth of study, with emphasis on complex problem solving and communication, enables them to successfully compete with graduates from standard disciplines. This has been true even where environmental scientists have competed for specialist posts with graduates from vocational courses.

Statistics discussed with colleagues from other polytechnics, universities and colleges at the recent first national seminar on higher environmental education organized by the Institution of Environmental Sciences suggest that our Plymouth experience is by no means unique. Mr Robinson's reading of the *Shetland* figures reveals the classic mis-evaluation of environmental scientists with engineers, medical scientists, etc. For many years graduates from courses such as Geology, History, English, PPE, have not a wide job applications net, usually not directly related to their degree. It is most important to inform all potential environmental science undergraduates that they will be able to do the same. Indeed we positively encourage our graduates to go into a wide range of posts in the public and private sectors.

Yours faithfully,
Dr D. L. Wigston,
Dr P. O'Sullivan,
School of Environmental Sciences,
Plymouth Polytechnic.

Sir,—In his article *Standard of Environmental Degrees Attacked* (*THE TIMES*, September 15) your science correspondent Robin McKie appears to associate Professor Michael

Delaney with Dr Arnold Robinson in a blanket criticism of all environmental science degree courses. Having spoken in Professor Delaney's name I know that he does not agree with the view expressed by Dr Arnold Robinson as the report appears to suggest. One wonders further what competence Dr Robinson and the Council of Environmental Science and Technology have to judge all environmental science departments. To my knowledge no members of the council has ever visited or communicated with the department at Lancaster.

Lancaster, for instance, in common with a number of other universities (such as East Anglia, Southampton) offers carefully integrated intellectual and practical training in that expected in single subject scientific courses. These courses provide a scientific training which is particularly relevant to the solution of problems involving many variables.

This approach is different from that of most single subject scientific courses where practical training is contained within the laboratory and the number of variables carefully limited. The department of environmental sciences at Lancaster concentrates its interests in the science of the natural environment. It offers three separate degree schemes of study leading respectively to Bachelor of Science degrees in environmental science, geology or geophysical sciences.

The ecology course is taught jointly with the department of biological sciences and the geophysical sciences course with the department of physics. Each of these courses has a broad base leading to opportunities for specialization. The department of environmental sciences alone has 19 full-time teaching staff, a vigorous research programme and attracts visiting scholars.

The number of students graduating from all three courses is of the order of 80. We have found these students to be a disadvantage compared to students from single subject science departments in obtaining appropriate employment. It is neither our intention nor is it necessary that all graduates in environmental sciences should be restricted to employment directly associated with the natural environment.

Indeed, far from being a "hotch potch" inferior to single subject degrees, these courses provide an alternative training in applied science producing valuable candidates of a different kind from those coming from "conventional" science departments.

We have frequently been complimented by satisfied employers on the standard and adaptability of our graduates and the speed with which they assimilate new skills. Lancaster graduates have entered a very wide range of employment and we have numerous instances of our graduates who have, during the past ten years made excellent progress into senior appointments.

Yours faithfully,
A. N. HUNTER,
Department of Environmental Sciences,
Lancaster University.

Advantages of the Open University

Sir,—I was intrigued by Maggie Richardson's account (*THE TIMES*, October 13) entitled *Dangerous Myth of The OU of an article by John Mace* in *Mythology in the Making*. While not wishing to dispute Mr Mace's conclusions without first studying his article carefully, I would like to comment on the observation: "below 15 per cent of all OU ordinary graduates were educationally disadvantaged. To demonstrate the relative openness of the OU it would be necessary to compare these percentages with the unqualified who enter conventional universities and other degree-awarding institutions and go on to secure degrees." This evidence is not provided.

I am not surprised that "this evidence is not provided" as it is extremely difficult to come by and as far as I and my colleagues are aware no one has produced evidence on a national scale. Many universities do not keep separate records of students who enter without the necessary formal qualifications and those that do have formal procedures of entry for unqualified students apply them at different ages ranging from 21 to 26.

Thus it is not possible to ascertain with any degree of exactitude how many such students there are in British universities. A reasonable guess would be some 15 students

over the age of 25 in each university—a total of 750. A similar picture is found with the polytechnics, but it is made more complex due to the variety of courses.

As to the final examination performance of unqualified students, little evidence is as yet available for the conventional universities. Studies of mature students at Warwick and Lancaster suggest that mature students do better than do students entering at 18. Unfortunately, these studies do not provide any separate information on unqualified students. Birmingham University reports a very high pass rate among its unqualified mature student intake of 1972.

We at the division of continuing education are currently investigating unqualified mature students who entered Sheffield University between 1975 and 1978 as part of a two-year DES-funded research project on mature students. It would be useful if similar studies could be carried out elsewhere. The evidence would then be available to compare the "openness" of the OU with conventional universities as Mr Mace is attempting to do.

Yours faithfully,
GORDON RODERICK,
Director,
Division of Continuing Education,
Sheffield University.

Salary secrecy

Sir,—A colleague has recently brought your article of September 22, 1978 on the AUT test case on salary secrecy to my attention. I feel that your readers may be interested in my experience of AUT policy on disclosure of salary information and the AUT hypocrisy which it exposes.

In 1976/77, I wrote in the *AUT* requesting information on nationally negotiated salary levels for university teachers. My letter was one of a number which I sent to "elite" colleges in connection with an SSRC funded research project. I was at that time, research assistant to Professor Donald MacKay at the Department of Political Economy, University of Aberdeen.

The reply from the AUT informed me that the information I requested would only be made available if I was a member of the AUT, despite the fact that, to quote Mr Laurie Sapor (in your article), "This is no secret information. There is no reason why it should be withheld". Both Professor MacKay and I were members of the AUT at that time, and we eventually obtained the information. However, the most significant fact, in the light of the AUT's present attitude, is their initial refusal to disclose this information and their continued refusal to alter their policy on disclosure of salaries despite the fact that the information was not secret and, perhaps more importantly, despite the fact that they were actively limiting free academic inquiry. After almost a year of unsuccessful attempts to have the policy changed, I resigned from the AUT on principle.

The similarity between the official policy of the AUT and that of the universities involved in the current dispute is striking, and whereas I support the notion of full disclosure of salary data (in this context and generally) I feel that the AUT is attempting to operate an unpleasant double standard.

Yours sincerely,
J. L. FALLICK,
Department of Economics,
University of Manchester.

Voluntary colleges

Sir,—Dr Cannon's letter (*THE TIMES*, September 23) should not be allowed to pass entirely without comment, if only for the sake of maintaining a proper perspective on the issue. Dr Cannon gives the impression, whether deliberately or otherwise, that he looks on voluntary colleges as intruders on the scene who are, in his view, quite likely to fall their probationary period and therefore should be dismissed as soon as possible. He also implies that they are some of their longer-established colleagues.

The hypocrisy of this representation of the voluntary colleges' position will fortunately be obvious to those many people who know the long and valued contribution which the colleges have been making.

But this really crucial point is unspoken from Dr Cannon's letter is to discover in whose name he believes himself to be asking his question about justification for their continued existence? and, even more significantly, to whom the question is being directed. If it is directed to the 25 or so voluntary providing bodies who carry the responsibility for those colleges, then they will not be impressed by his pseudo-argument that Dr Cannon puts forward. (They will note that in his own admission his knowledge of the voluntary colleges is a "limited" one.)

If his question is addressed to the DES and/or the RACs then they too are not likely, on the average, to be impressed by his pseudo-argument. Their positive evaluation of the voluntary colleges' contribution to the future pattern of HE, an evaluation which is clearly reflected in the Gakes report (particularly in its recommendations on new RAC structures), and one which is echoed in the RAC's own deepening relationships with the voluntary colleges and their providing bodies.

Yours faithfully,
COLIN ALVES,
Secretary for the Church Colleges,
Board of Education,
Church House, Westminster.

Fircroft reopening

Sir,—It is encouraging news that the TUC may be prepared to attend talks based on the Charity Commission proposals for the reopening of Fircroft College. The Old Fircrofters Guild, while not entirely confident of the practicalities of the outline proposals, nevertheless welcome them in principle as an improvement on the previous scheme which gave the TUC a simple unencumbered majority on the new Fircroft Council.

What is essential now is that future talks are not confined to the Fircroft Trust, TUC and Charity Commissioners. It was through the secret conclave of the first two parties that the college was brought to the brink of permanent closure. We hope the Trust

and the TUC will realize that the present situation does not call for private negotiations but for open consultations. Fircroft, long largely supported by the DES, is in the public domain and its future should be decided only after discussions with representatives of other expert and interested parties such as the various adult education bodies and ex-students.

The "shadow" Fircroft Council along with the Charity Commissioners is the obvious body to which swift recourse should be made if the college is going to reopen next year.

Yours faithfully,
BRIAN N. NICOL,
Press Officer,
The Old Fircrofters' Guild.

Teeside Polytechnic

The recent and much publicized CNA report on this polytechnic has raised many important questions but, to a debate that has been largely of a jurisdictional nature, perhaps the more important question of all—what is the role of (or any) polytechnic?—has not been asked. It is, therefore, more appropriate that Eric Robinson, whose ideas inspired many people who entered the polytechnics in the first place, should be called upon to review attitudes towards post-school education at a time when the provision of higher education in particular is being questioned in the light, not just of the CNA visit, but of more profound demographic and economic changes that will bring new pressures and demands on all sectors of tertiary education in the coming decades.

Understandably, many polytechnics have tended towards a university type existence. While this can be seen as an advance, in the sense of an increase in the number of higher education places, this tendency, in a wider and more important sense, led to the perpetuation of a privileged/underprivileged division between higher and further education which has resulted in not simply resentment between the two groups but the neglect of a large and deserving section of the population, as well as a less than efficient use of resources.

For some polytechnics the presence of an established university makes it difficult to break down the barriers within tertiary education. However, for others, such as Teeside, situated in an area where the presence of capital intensive industry with limited job-renting potential is more significant, and thus the absence of a university, the opportunities to develop com-

prehensive adult education, in conjunction with the local colleges of education, are considerable.

The problems of higher education can usefully be seen as opportunities for adult education. The need for a comprehensive provision of post-school education is probably greater now than ever before but, more importantly, the chance to meet this need is probably greater. The polytechnics, especially those situated in areas similar to County Cleveland, have a golden opportunity that must be taken. An initiative has been provided by ideas such as those of Eric Robinson's. Now is the time for these ideas to be put into practice and followed up and build on this lead.

Yours faithfully,
DAVID TAYLOR,
FRANK GRIFFITHS,
RICHARD LEWIS,
Department of Humanities,
Teeside Polytechnic.

Move letters on page 20